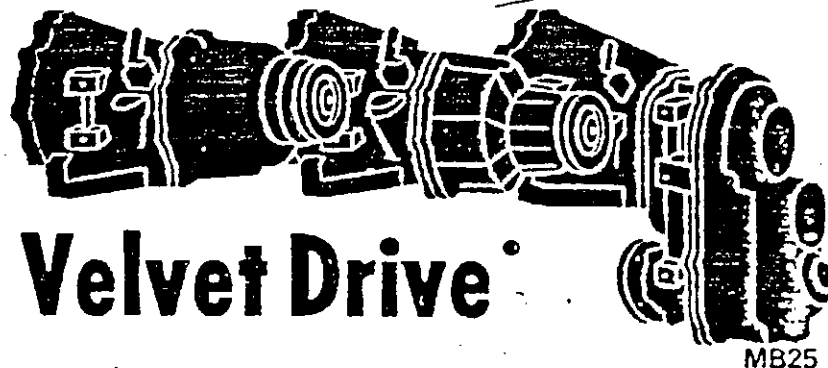


Installation & Service Bulletin



De navolgende onderdelen van Borg Warner zijn te leveren in sets met de onderstaande setnummers, waar tevens achter vermeld staat het onderdeelnummer, dat door Volvo Penta Nederland B.V. gehanteerd wordt.

<u>Velvet no.</u>	<u>Volvo Penta nr.</u>	<u>Omschrijving</u>
A 4867 DD	7701006578	Output Shaft Bushing Kit
A 4867 HA	8903000207	Oil Seal & Sealing Ring Kit, 70C, 71C & 72C
A 4867 VV	7701006574	Case Bushing Kit
A 4867 HB		Gasket, Oil Seal & Sealing Ring Kit for "73C"
A 4867 DW	7902002354	Small Parts Kit for "73C"
A 4867 HN	7902002348	Drive Gear Alarm Kit
10.04.420.052	7902001958	Neutral Switch Kit
10.04.640.004	8903000224	Switch and O-ring for Neutral Switch
10.95.410.002	8903000208	Snap Ring Kit for All 70C, 71C & 72C Units
10.13.410.001		Gasket & Seal Kit for All CR2 Units
10.13.410.002		Small Parts Kit for CR2 Units

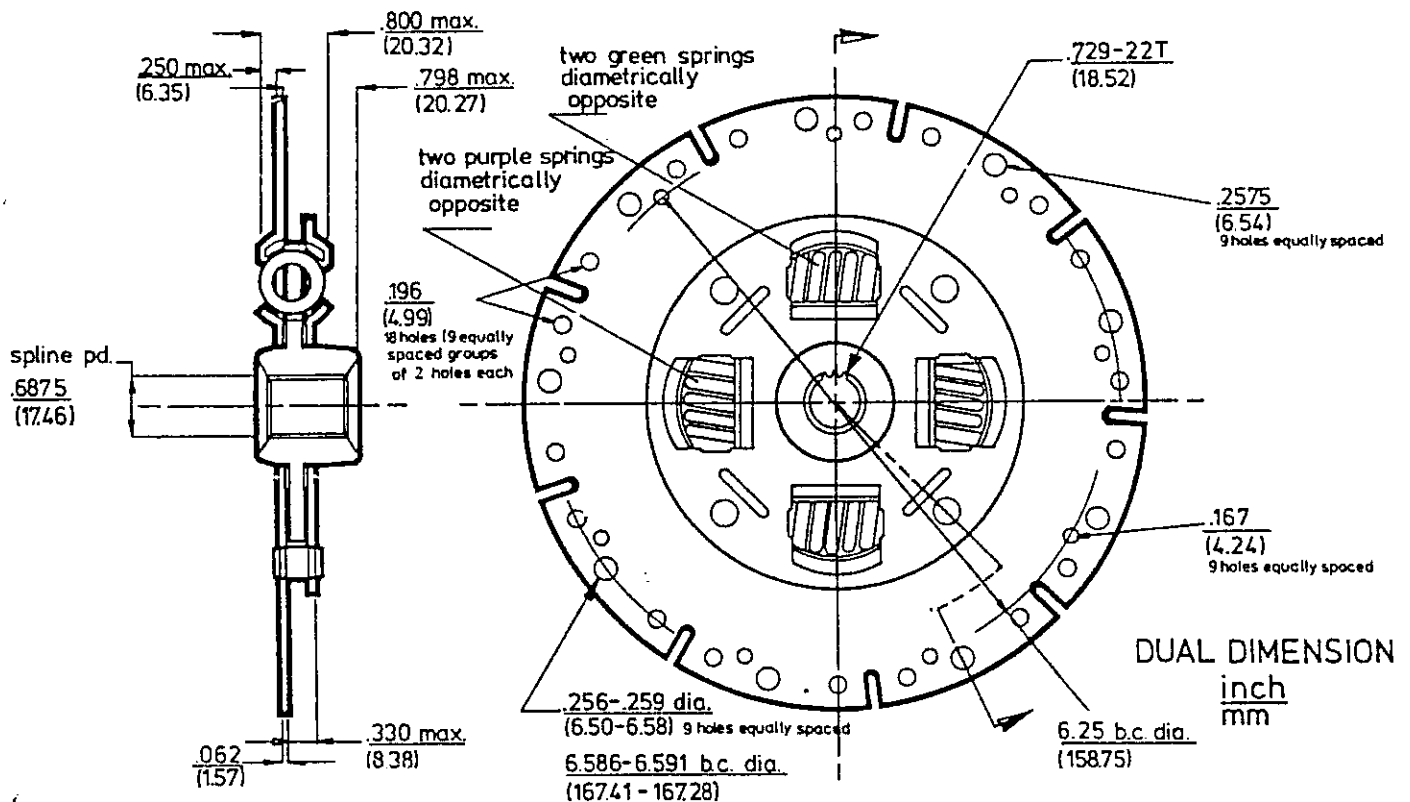
VOLVO PENTA

Volvo Penta Nederland B.V.

Ridderkerk, Holland

Installation Dimensions For Marine Damper Assemblies

ASSEMBLY 10-23-650-002 = 8903000222



FOR SERIES 1000 TRANSMISSION ONLY

RATING CHART

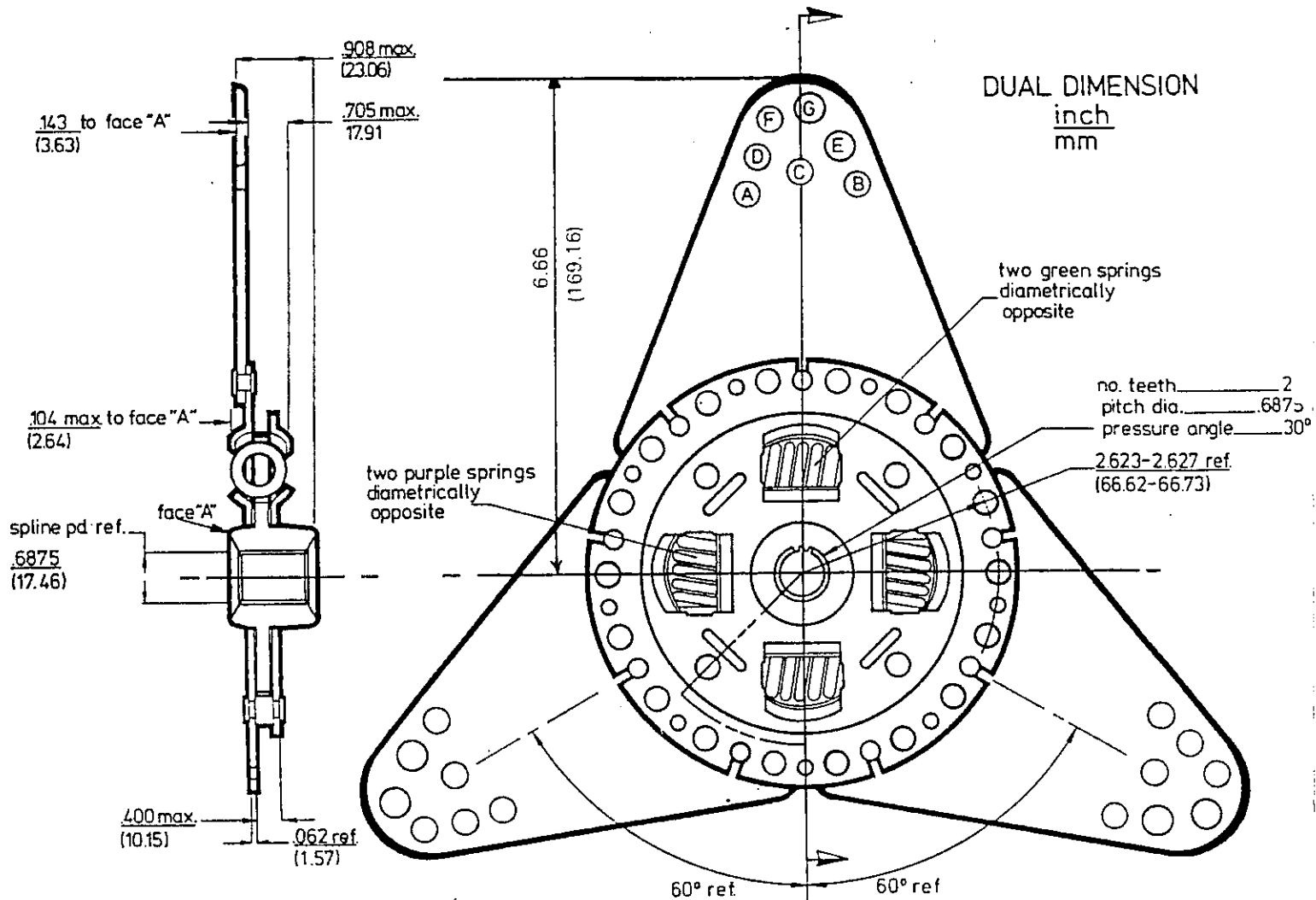
# CYL	GASOLINE ENGINE		DIESEL ENGINE	
	lb. ft.	Nm	lb. ft.	Nm
8	148	2007	129.5	175.6
6	138.75	188.1	111	150.5
4	120.25	163	92.5	125.4
1-3	101.75	138	74	100.3

Parenthetical dimensions are expressed metrically.

Warner Gear

Division of Borg-Warner Corporation
P.O. Box 2688, Muncie, Indiana 47302
Telephone 317/284-8411 Telex 027-491

ASSEMBLY 10-23-650-001 = 8903000223



FOR SERIES 1000 TRANSMISSION ONLY

RATING CHART

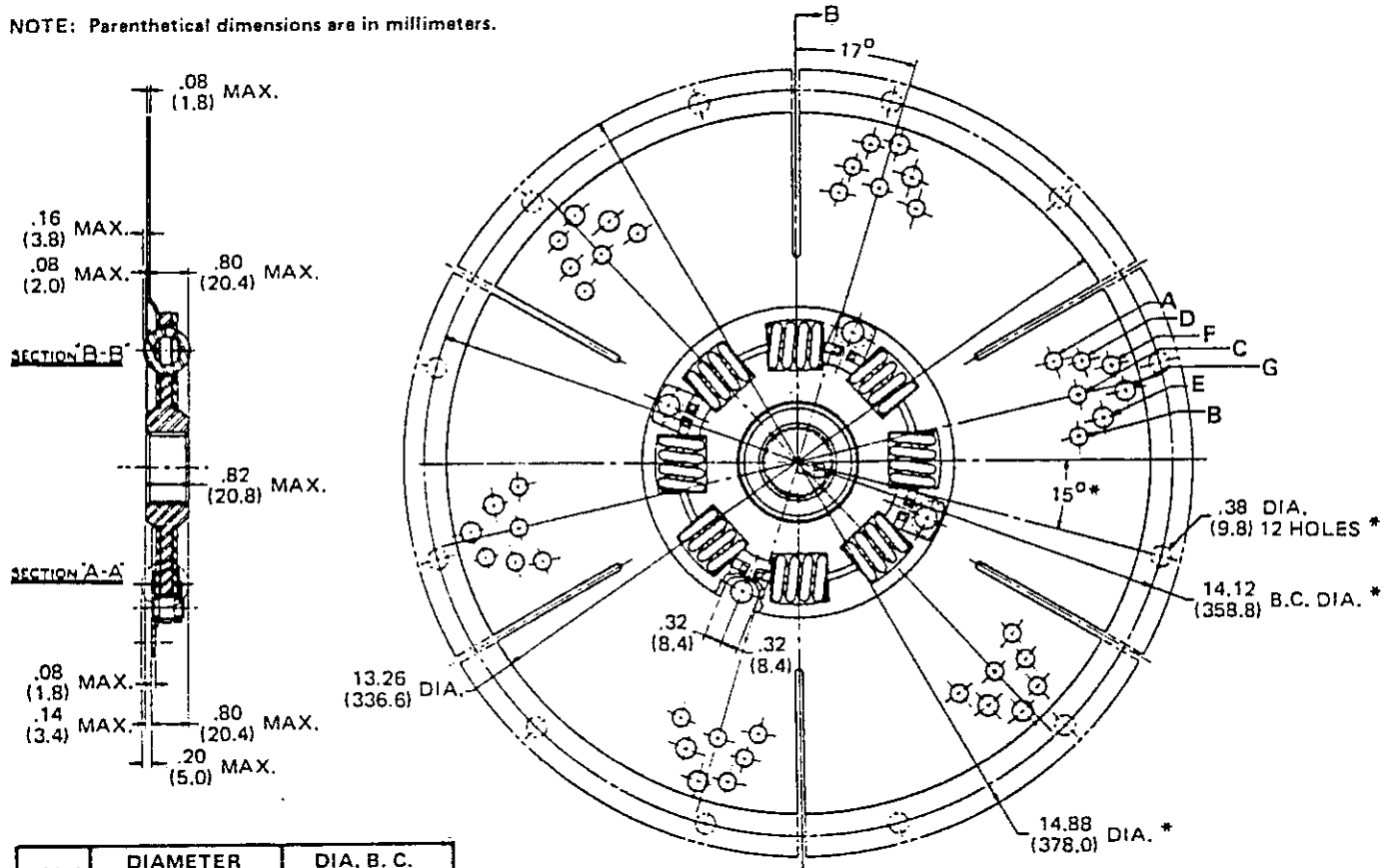
# CYL	GASOLINE ENGINE		DIESEL ENGINE	
	lb. ft.	Nm	lb. ft.	Nm
8	148	2007	129.5	175.6
6	138.75	188.1	111	150.5
4	120.25	163	92.5	125.4
1-3	101.75	138	74	100.3

HOLE	DIAMETER OF HOLE		DIAMETER OF B.C.	
	inch	mm	inch	mm
A	.322-.326	8.18-8.28	10.375	263.53
B	.322-.326	8.18-8.28	10.625	269.88
C	.322-.326	8.18-8.28	10.875	276.23
D	.322-.326	8.18-8.28	11.375	288.93
E	.385-.389	9.78-9.88	11.625	295.28
F	.322-.326	8.18-8.28	12.375	314.33
G	.385-.389	9.78-9.88	12.625	320.68

ASSEMBLIES AS5, 7, 14-K1C, AS5, 7, 13-K2C

AS5 K2C = 7902001500.

NOTE: Parenthetical dimensions are in millimeters.



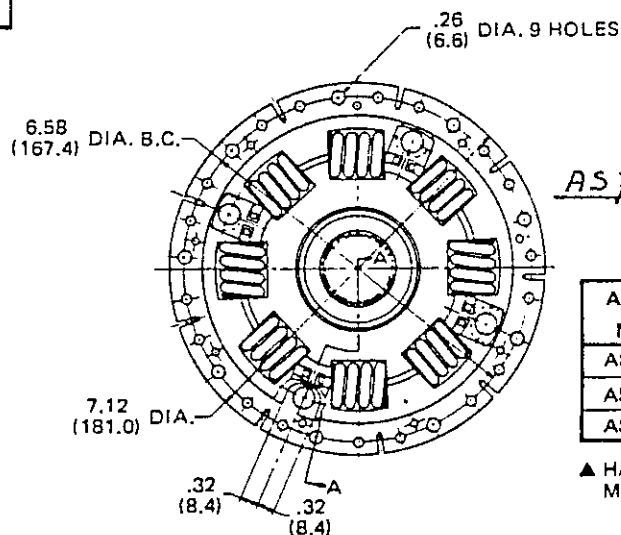
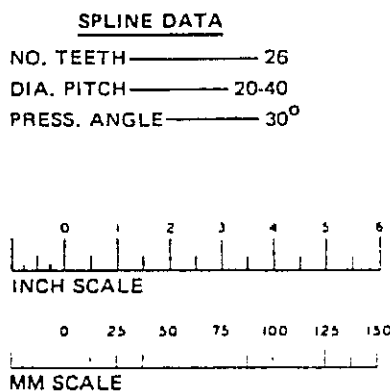
HOLE	DIAMETER		DIA. B. C.	
	INCH	MM	INCH	MM
A	.322-.326	8.2	10.375	263.6
B	.322-.326	8.2	10.625	269.8
C	.322-.326	8.2	10.875	276.2
D	.322-.326	8.2	11.375	289.0
E	.385-.389	9.8	11.625	295.2
F	.322-.326	8.2	12.375	314.4
G	.385-.389	9.8	12.625	320.6

NOTE:

Bolts should be of the shoulder type to avoid bearing on threads. Warner Gear Division does not supply flywheel bolts.

ASSEMBLY NUMBER	SPRINGS	
	NO.	COLOR
AS5-K2C	8	WHITE
AS7-K2C	8	PURPLE
AS13-K2C *	8	PURPLE

* AS13-K2C ONLY



AS7 K1C = 7902001504

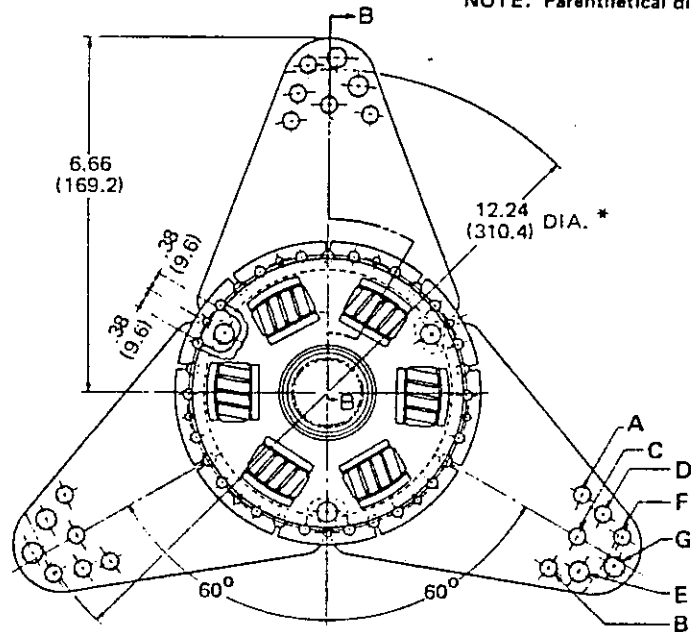
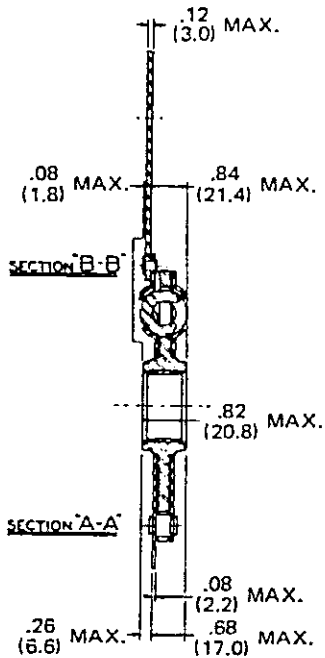
ASSEMBLY NUMBER	SPRINGS	
	NO.	COLOR
AS5-K1C	8	WHITE
AS7-K1C	8	PURPLE
AS14-K1C ▲	8	PURPLE

▲ HARDENED HUB WITH FACES MACHINED.

ASSEMBLIES AS1, 4, 12-K1C, AS1, 4, 8, 12-K2C

AS12K2C = 7902001503

NOTE: Parenthetical dimensions are in millimeters.



HOLE	DIAMETER		DIA. B. C.	
	INCH	MM	INCH	MM
A	.322-.326	8.2	10.375	263.6
B	.322-.326	8.2	10.625	269.8
C	.322-.326	8.2	10.875	276.2
D	.322-.326	8.2	11.375	289.0
E	.385-.389	9.8	11.625	295.2
F	.322-.326	8.2	12.375	314.4
G	.385-.389	9.8	12.625	320.6

NOTE:

Bolts should be of the shoulder type to avoid bearing on threads. Warner Gear Division does not supply flywheel bolts.

ASSEMBLY NUMBER	SPRINGS	
	NO.	COLOR
AS1-K2C	6	4 PINK 2 YELLOW
AS4-K2C	6	RED
AS8-K2C *	6	RED
AS12-K2C	6	4 YELLOW 2 PINK

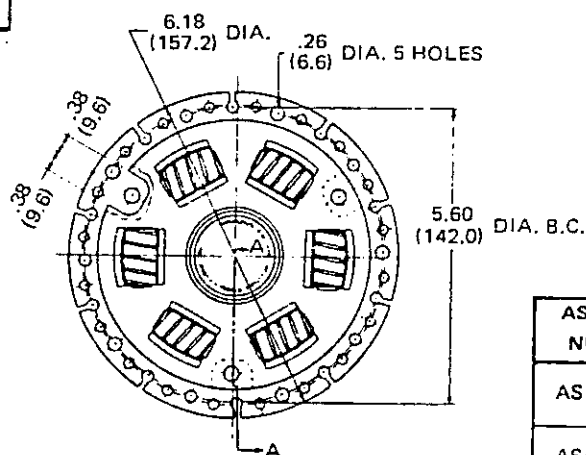
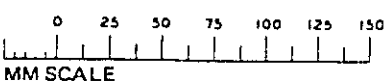
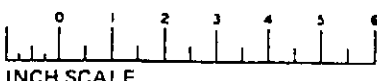
* DIAMETER ONLY

SPLINE DATA

NO. TEETH _____ 26

DIA. PITCH _____ 20-40

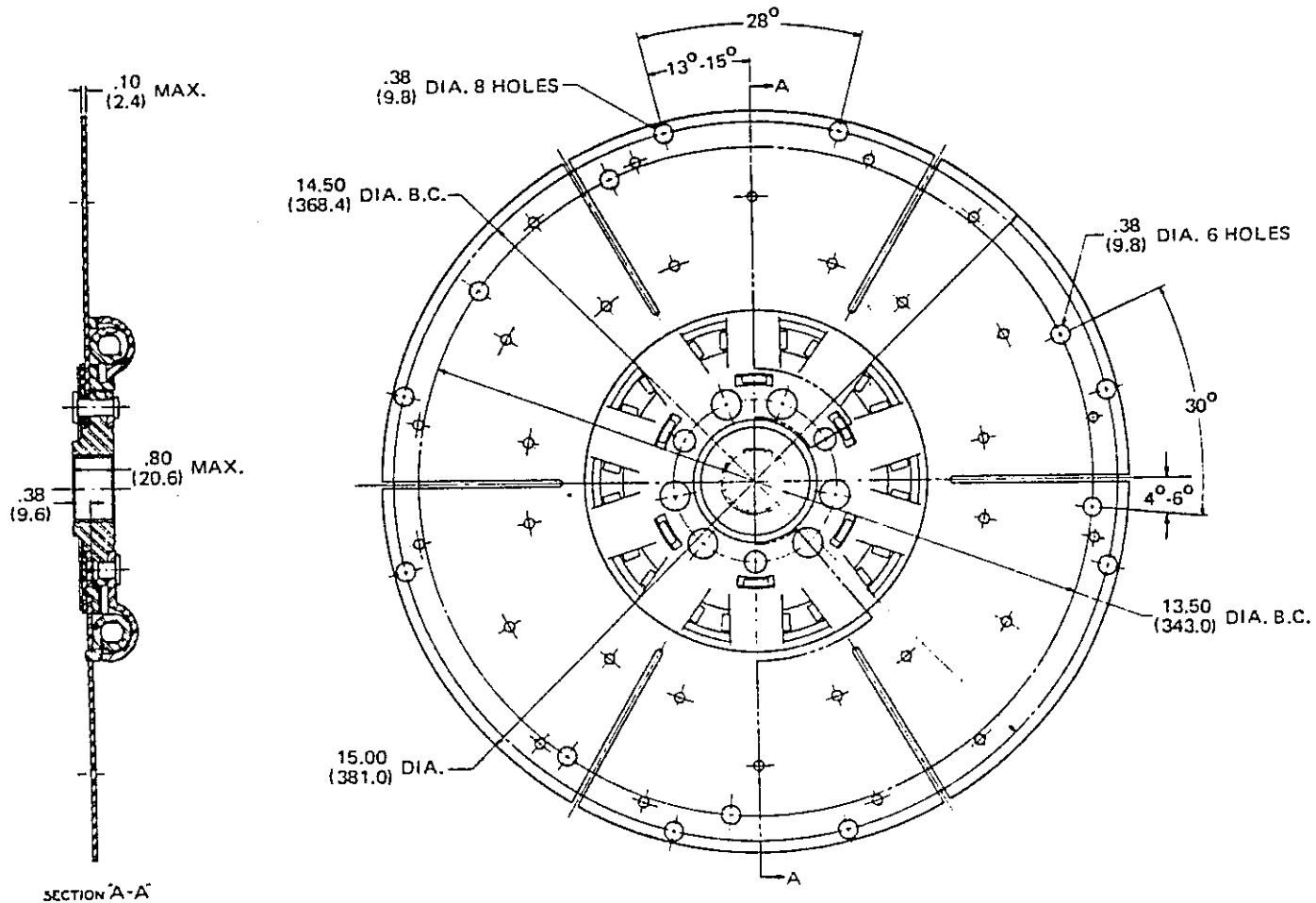
PRESS. ANGLE _____ 30°



ASSEMBLY NUMBER	SPRINGS	
	NO.	COLOR
AS1-K1C	6	4 PINK 2 YELLOW
AS4-K1C	6	RED
AS12-K1C	6	4 YELLOW 2 PINK

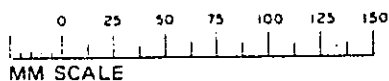
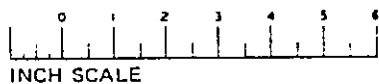
1004-650-005
ASSEMBLY AS3-KPC = 7902001502

NOTE: Parenthetical dimensions are in millimeters.



NOTE:

Bolts should be of the shoulder type to avoid bearing on threads. Warner Gear Division does not supply flywheel bolts.



SPLINE DATA

NO. TEETH _____ 26
 DIA. PITCH _____ 20-40
 PRESS. ANGLE _____ 30°

Warner Gear International

Division of Borg-Warner Ltd
Eldon Way, Biggleswade, Bedfordshire, SG18 8NH, England
Telephone Biggleswade (0767) 313684
Telex Wargear B-Wade 825549



Registered No. 156810 Engla

Registered Office
Jubilee Road, Letchworth
Hertfordshire

Page 1

Effective Date 29 June 1981

VELVET DRIVE MARINE TRANSMISSIONS AND ACCESSORIES

A. MODELS WITH CO-AXIAL INPUT/OUTPUT

Engine rotation viewed from flywheel
Propeller from stern of boat looking forward

<u>Part Number</u>	71C SERIE.		<u>Description</u>
10-17-000-003	RH Engine	RH Prop	Direct Drive
10-17-000-004	LH Engine	LH Prop	Direct Drive
10-17-000-005	RH Engine	RH Prop	1.523:1 Reduction
10-17-000-006	LH Engine	LH Prop	1.523:1 Reduction
10-17-000-009	RH Engine	RH Prop	2.1:1 Reduction
10-17-000-010	LH Engine	LH Prop	2.1:1 Reduction
10-17-000-011	RH Engine	RH Prop	2.57:1 Reduction
10-17-000-012	LH Engine	LH Prop	2.57:1 Reduction
10-17-000-013	RH Engine	RH Prop	2.909:1 Reduction
10-17-000-014	LH Engine	LH Prop	2.909:1 Reduction
10-17-000-007	RH Engine	LH Prop	1.909:1 Reduction
10-17-000-008	LH Engine	RH Prop	1.909:1 Reduction
10-17-000-015	RH Engine	RH Prop	Front Half
10-17-000-016	LH Engine	LH Prop	For Z-Drives etc.

The 5" propeller shaft coupling flange is standard on all 10-17 and 10-18 assemblies with the exception of the 10-17-000-001 and 002 which have a 4" flange.

Engine rotation viewed from flywheel
Propeller from stern of boat looking forward

<u>Part Number</u>	72C.SERIE		<u>Description</u>
10-18-000-001	RH Engine	RH Prop	Direct Drive
10-18-000-002	LH Engine	LH Prop	Direct Drive
10-18-000-003	RH Engine	RH Prop	1.523:1 Reduction
10-18-000-004	LH Engine	LH Prop	1.523:1 Reduction
10-18-000-007	RH Engine	RH Prop	2.1:1 Reduction
10-18-000-008	LH Engine	LH Prop	2.1:1 Reduction
10-18-000-009	RH Engine	RH Prop	2.57:1 Reduction
10-18-000-010	LH Engine	LH Prop	2.57:1 Reduction
10-18-000-011	RH Engine	RH Prop	2.909:1 Reduction
10-18-000-012	LH Engine	LH Prop	2.909:1 Reduction
10-18-000-005	RH Engine	LH Prop	1.909:1 Reduction
10-18-000-006	LH Engine	RH Prop	1.909:1 Reduction
10-18-000-013	RH Engine	RH Prop	Front Half
10-18-000-014	LH Engine	LH Prop	For Z-Drives etc

Output shaft flanges for models 10-18 are 5" diameter

<u>Part Number</u>	73C.SERIE		<u>Description</u>
10-06-000-004	RH Engine	RH Prop	Direct Drive
10-06-000-005	LH Engine	LH Prop	Direct Drive
10-06-000-006	RH Engine	RH Prop	1.5:1 Reduction
10-06-000-007	LH Engine	LH Prop	1.5:1 Reduction
10-06-000-008	RH Engine	RH Prop	3.0:1 Reduction
10-06-000-009	LH Engine	LH Prop	3.0:1 Reduction
10-06-000-010	RH Engine	LH Prop	2.0:1 Reduction
10-06-000-011	LH Engine	RH Prop	2.0:1 Reduction

Output shaft flanges for models 10-06 are 5 $\frac{1}{4}$ " diameter

All units shown for engines LH rotation viewed from flywheel
Propeller from stern of boat looking forward

<u>Part Number</u>	<u>V. DRIVE</u> <u>71C Series</u>	<u>Description</u>
10-04-000-002	RH Prop	1.99:1 Reduction
10-04-000-003	LH Prop	1.98:1 Reduction
10-04-000-004	LH Prop	2.50:1 Reduction
10-04-000-005	RH Prop	2.49:1 Reduction
10-04-000-006	LH Prop	3.10:1 Reduction
10-04-000-007	RH Prop	3.14:1 Reduction
10-04-000-008	LH Prop	0.97:1 Reduction
10-04-000-009	RH Prop	0.98:1 Reduction
10-04-000-010	LH Prop	1.53:1 Reduction
10-04-000-011	RH Prop	1.51:1 Reduction
10-04-000-012	RH Prop	1.21:1 Reduction
10-04-000-013	LH Prop	1.21:1 Reduction

UK 1000 Kit Mounting plates for 10-04

With the 10-04 V-Drive use side mounting plates ref: page 18 in our V-Drive Service Manual.

Output shaft flanges for Model 10-04 are 5" diameter. The 10-04 V-Drive is equivalent to our 10-17 Velvet Drive.

<u>Part Number</u>	<u>V. DRIVE</u> <u>72C Series</u>	<u>Description</u>
10-05-000-002	RH Prop	1.99:1 Reduction
10-05-000-003	LH Prop	1.98:1 Reduction
10-05-000-004	LH Prop	2.50:1 Reduction
10-05-000-005	RH Prop	2.49:1 Reduction
10-05-000-006	LH Prop	3.10:1 Reduction
10-05-000-007	RH Prop	3.14:1 Reduction
10-05-000-008	LH Prop	0.97:1 Reduction
10-05-000-009	RH Prop	0.98:1 Reduction
10-05-000-010	LH Prop	1.53:1 Reduction
10-05-000-011	RH Prop	1.51:1 Reduction
10-05-000-012	RH Prop	1.21:1 Reduction
10-05-000-013	LH Prop	1.21:1 Reduction

UK 1001 Kit Mounting plates for 10-05

With the 10-05 V-Drive use side mounting plates ref: page V-Drive Service Manual

Output shaft flanges for 10-05 V-Drives are 5" diameter

C. CR2 DROP CENTRE MODELS

All units shown for engines LH rotation viewed from flywheel
Propeller from stern of boat looking forward

<u>Part Number</u>	<i>DROPCENTER</i> <i>71C. SERIE</i>	<u>Description</u>
10-13-000-001	LH Prop	1.58:1 Reduction
10-13-000-002	RH Prop	1.58:1 Reduction
10-13-000-003	LH Prop	2.03:1 Reduction
10-13-000-004	RH Prop	2.03:1 Reduction
10-13-000-005	LH Prop	2.47:1 Reduction
10-13-000-006	RH Prop	2.47:1 Reduction
10-13-000-007	LH Prop	2.93:1 Reduction
10-13-000-008	RH Prop	2.93:1 Reduction

All units shown for engines RH rotation viewed from flywheel
Propeller from stern of boat looking forward

<u>Part Number</u>	<i>DROPCENTER</i> <i>71C. SERIE</i>	<u>Description</u>
10-13-000-009	RH Prop	1.58:1 Reduction
10-13-000-010	RH Prop	2.03:1 Reduction
10-13-000-011	RH Prop	2.47:1 Reduction
10-13-000-012	RH Prop	2.93:1 Reduction

Output shaft flanges for models 10-13 are 5" diameter

All units shown for engines LH rotation viewed from flywheel
Propeller from stern of boat looking forward

<u>Part Number</u>	<u>DROP CENTER</u> <u>72C Serie</u>	<u>Description</u>
10-14-000-001	LH Prop	1.58:1 Reduction
10-14-000-002	RH Prop	1.58:1 Reduction
10-14-000-003	LH Prop	2.03:1 Reduction
10-14-000-004	RH Prop	2.03:1 Reduction
10-14-000-005	LH Prop	2.47:1 Reduction
10-14-000-006	RH Prop	2.47:1 Reduction
10-14-000-007	LH Prop	2.93:1 Reduction
10-14-000-008	RH Prop	2.93:1 Reduction

All units shown for engines RH rotation viewed from flywheel
Propeller from stern of boat looking forward

<u>Part Number</u>	<u>DROP CENTER</u> <u>72C Serie</u>	<u>Description</u>
10-14-000-009	RH Prop	1.58:1 Reduction
10-14-000-010	RH Prop	2.03:1 Reduction
10-14-000-011	RH Prop	2.47:1 Reduction
10-14-000-012	RH Prop	2.93:1 Reduction

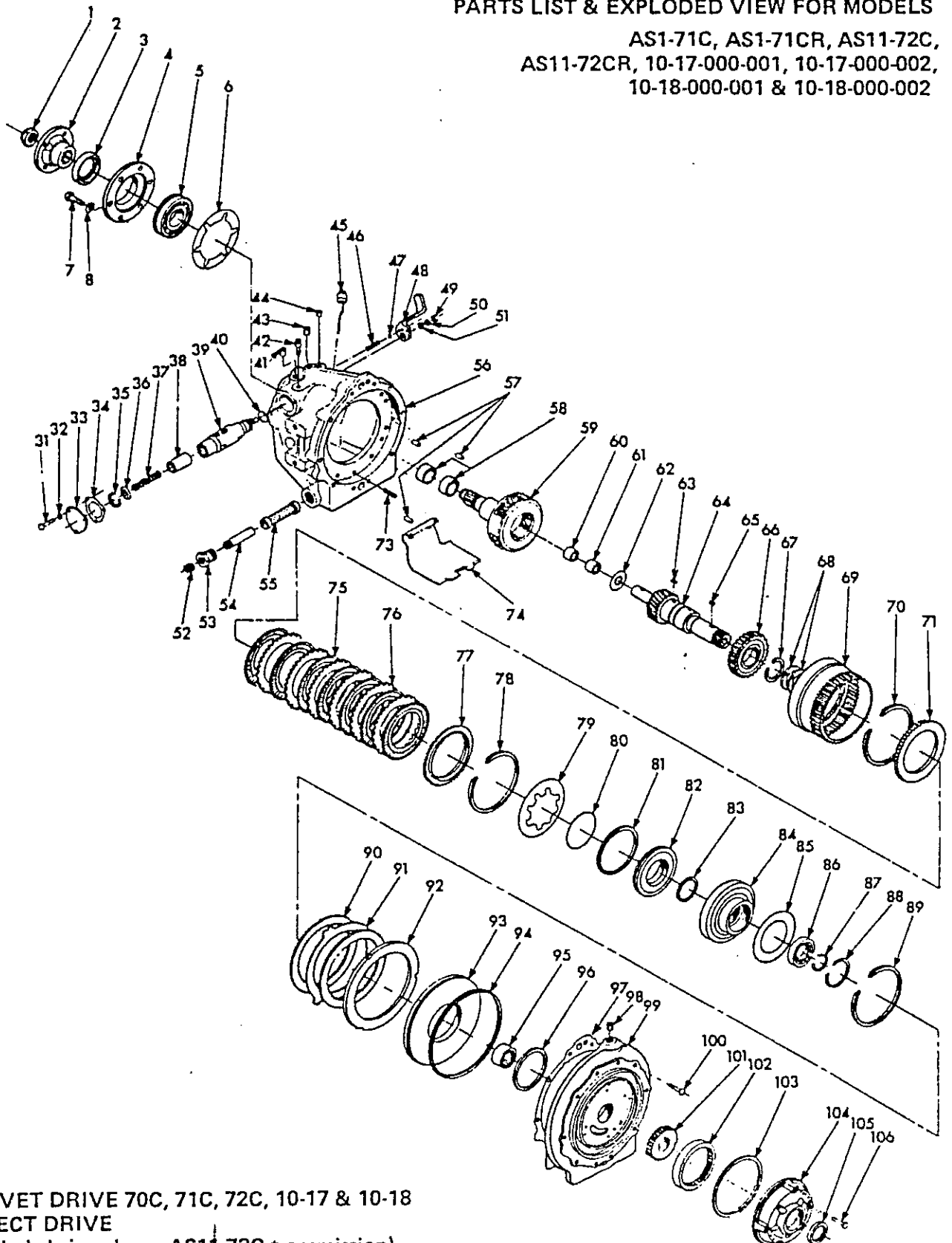
Output shaft flanges for models 10-14 are 5" diameter

VELVET NIEUW
TYPEN VANAF 1978

VELVET DRIVE HYDRAULIC MARINE TRANSMISSION

PARTS LIST & EXPLODED VIEW FOR MODELS

AS1-71C, AS1-71CR, AS11-72C,
AS11-72CR, 10-17-000-001, 10-17-000-002,
10-18-000-001 & 10-18-000-002



VELVET DRIVE 70C, 71C, 72C, 10-17 & 10-18
DIRECT DRIVE
(Exploded view shows AS11-72C transmission)

PARTS LIST FOR MARINE UNITS WITH DIRECT DRIVE

INDEX NO.	W.G. PART NO.	DESCRIPTION	NO. REQ.	INDEX NO.	W.G. PART NO.	DESCRIPTION	NO. REQ.
1	4775L	Main shaft nut	1	76	3-176	Clutch plate (steel) (10-18)	6
2	4547AY	Coupling (10-18)	1			Clutch plate (steel) (10-17)	4
	4547BA	Coupling (10-17)	1	77	5C-175A	Clutch pressure plate	1
3	71C-110	Oil seal	1	78	4755	Clutch spring snap ring	1
4	72-7	Bearing retainer (10-18)	1	79	3-37	Clutch spring	1
	71-7	Bearing retainer (10-17)	1	80	5C-33	Clutch spring bearing ring	1
5	B309AGS	Annular Bearing (10-18)	1	81	5L-36	Clutch ring	1
	B308AGS	Annular bearing (10-17)	1	82	71-45	Forward clutch piston	1
6	72-147	Bearing retainer gasket (10-18)	1	83	5M-122	Sealing ring ("O" ring)	1
	71-147	Bearing retainer gasket (10-17)	1	84	72-70	Forward clutch cylinder (10-18)	1
7	4737Q	7/16-14 x 1-1/8 Hex head bolt (10-18)	6		71-70	Forward clutch cylinder (10-17)	1
	0000179859	7/16-14 x 1-1/8 Hex head bolt (10-17)	6	85	71-15B	Thrust washer	1
8	X2979DR	7/16 Lockwasher (10-18)	6	86	B108A	Annular bearing (10-18)	1
	0000103322	7/16 Lockwasher (10-17)	6		B107A	Annular bearing (10-17)	1
31	0000179791	1/4-20 x 1/2 Hex head bolt	3	87	4559A	Snap ring (10-18)	1
33	71-4	Valve cover	1		4734	Snap ring (10-17)	1
34	71-14	Valve cover gasket	1	88	4766B	Snap ring (10-18)	1
N.I.	71-A244A	Valve & spring assembly (items 35, 36, 37, 38, & 39)	1		R6A-7-1/2	Snap ring (10-17)	1
35	4821	Snap ring	1	89	4822	Ring gear snap ring	1
36	71-246	Valve spring retainer	1	90	72-A66B	Reverse clutch plate assembly (10-18)	2
37	71-242	Valve spring	1			Reverse clutch plate assembly (10-17)	1
38	71-243	Pressure regulator valve	1	91	72-176	Outer clutch plate (10-18)	1
39	71-244A	Forward & reverse gear trans. valve	1	92	71-71	Reverse clutch pressure plate	1
40	4804H	"O" Ring	1	93	71-35	Reverse clutch piston	1
41	10-00-191-002	3/8-18 Plastic plug	1	94	4805A	Sealing ring	1
42	A4740G	Breather assembly	1	95	4840D	Needle bearing	1
43	444866	3/8-18 Pipe plug	1	96	4804G	SEaling ring	1
44	444687	1/8-27 Pipe plug	1	97	71-144B	Case & adapter gasket	1
45	10-13-559-001	Dipstick assembly	1	98	444858	1/4 Pipe plug	1
N.I.	10-04-034-002	Dipstick tube	1	99	71C-A8	Forward & reverse adapter	1
46	71-42	Poppet spring	1	100	4911	3/8-16 x 1-1/4 Cap screw	4
47	453632	5/16 Steel ball	1	N.I.	71C-A60	Pump assembly (includes 101, 102, 104, & 105)	1
48	71-79B	Forward & reverse shift lever	1	101	Not serviced	Pump drive gear (order assembly)	1
49	115729	5/16-24 Hex nut	1	102	Not serviced	Pump driven gear (order assembly)	1
50	108579	5/16 Lockwasher	1	103	3-61	Pump Gasket	1
51	103340	Control lever washer	1	104	Not serviced	Pump housing (order assembly)	1
52	10-00-191-002	3/8-18 Plastic plug	1	105	10-00-044-014	Oil seal assembly	1
53	4885B	Bushing	1	106	10-00-183-021	5/16-18 x 1-3/8 Hex head bolt	4
54	71C-84	Oil return tube	1				
55	71C-A98A	Oil strainer assembly (10-18)	1				
	71C-A98	Oil strainer assembly (10-17)	1				
56	72-A1J	Case (10-18)	1				
	71B-A1A	Case (10-17)	1				
57	R6-177	Dowel pin (10-18)	3				
	71-87A	Dowel pin (10-17)	3				
58	Kit A4867VV	Case bushings (2 presized bushings in kit)	1				
59	72-1A2	Pinion cage & output shaft (10-18)	1				
	71-1A2	Pinion cage & output shaft (10-17)	1				
60	Kit A4867DD	2 Presized bushings	1				
61	Kit A4867DD	2 Presized bushings	1				
62	71-17	Thrust washer	1				
63	0000124553	Woodruff key (10-18)	1				
	0000218211	Woodruff key (10-17)	1				
64	72C-2A16	Drive gear & plug assembly (10-18)	1				
	71C-3A16	Drive gear & plug assembly (10-17)	1				
65	4873	Woodruff key	1				
66	72-40	Forward clutch hub (10-18)	1				
	71-40	Forward clutch hub (10-17)	1				
67	4495	Snap ring	1				
68	4806J	Sealing ring	2				
69	72-6	Ring gear (10-18)	1				
	71-6	Ring gear (10-17)	1				
70	4768	Snap ring selective .050-.054, green	1-2				
	4768A	(10-18 only) .074-.078, orange	1				
	4768B	.096-.100, white	1				
71	5L-67	Clutch pressure plate	1				
73	71-97	Pressure plate spring	12				
74	71-140	Oil baffle (10-18)	1				
	71B-140	Oil baffle (10-17)	1				
75	5C-A66A	Clutch inner plate (10-18)	7				
		Clutch inner plate (10-17)	5				

N.I.—NOT ILLUSTRATED

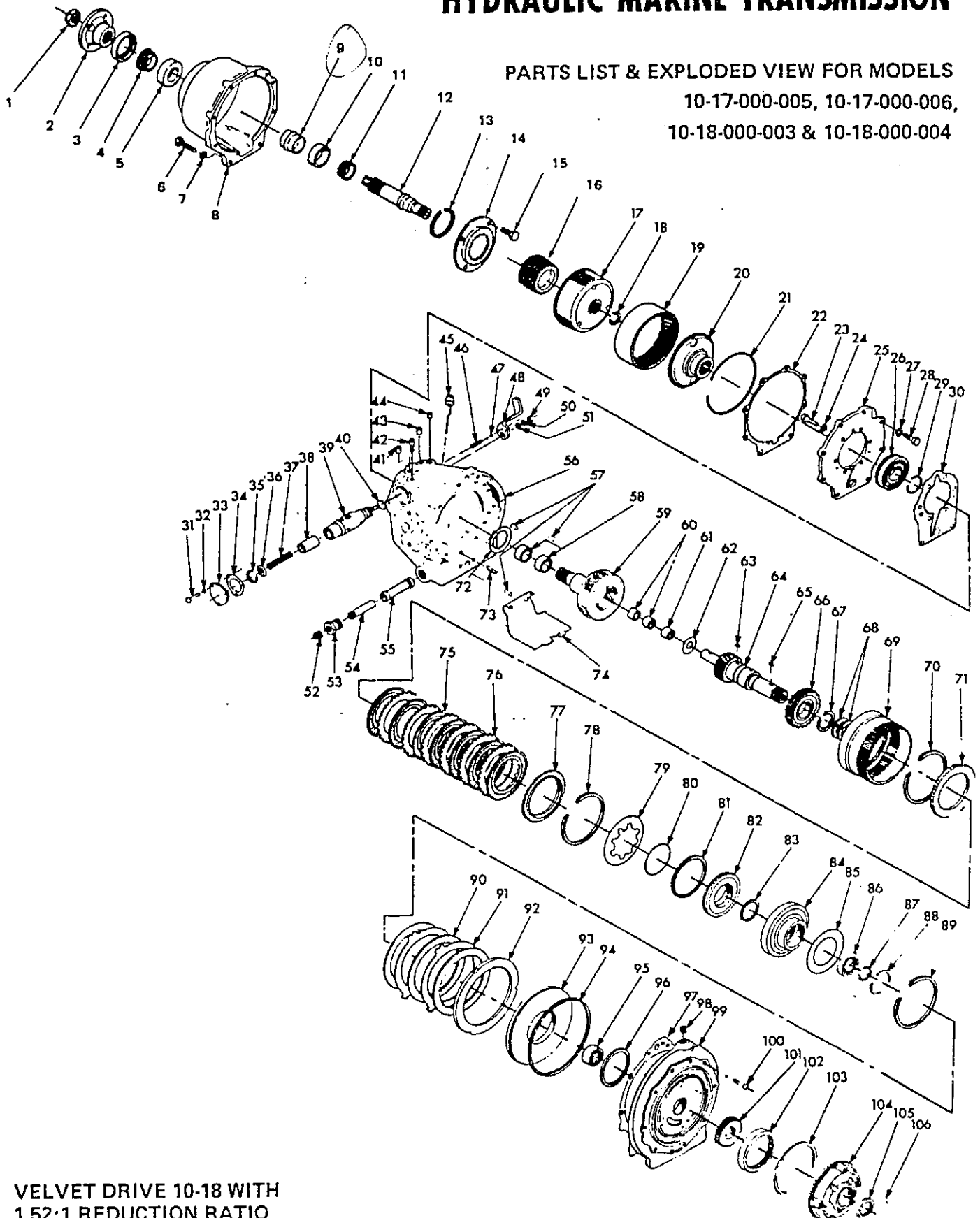
Warner Gear

TORG WARNER •Transportation
Equipment

Division of Borg-Warner Corporation
P.O. Box 2688, Muncie, Indiana 47302
Telephone: 317/286-6100 Telex: 027-491

VELVET DRIVE HYDRAULIC MARINE TRANSMISSION

PARTS LIST & EXPLODED VIEW FOR MODELS
10-17-000-005, 10-17-000-006,
10-18-000-003 & 10-18-000-004



VELVET DRIVE 10-18 WITH
1.52:1 REDUCTION RATIO

PARTS LIST FOR MARINE UNITS WITH 1.52:1 REDUCTION RATIO

INDEX NO.	W.G. PART NO.	DESCRIPTION	NO. REQ.	INDEX NO.	W.G. PART NO.	DESCRIPTION	NO. REQ.
1	4275G	Main shaft nut 1000-149-012	1	67	4495	Snap ring	1
2	10-00-031-001	Coupling	1	68	4806J	Sealing ring	2
3	10-00-044-017	Oil seal	1	69	72-6	Ring gear (10-18)	1
4	10-00-133-002	Bearing cone	1	70	71-6	Ring gear (10-17)	1
5	10-00-133-001	Bearing cup	1	71	4768	Snap ring, selective .059-.054, green	1-2
6	179864	7/16-14 x 1-3/4 Hex head bolt	2	72	4768A	(10-18 only) .074-.078, orange	1
7	103322	7/16 Lockwasher	2	73	4768B	.096-.100, white	1
8	10-17-065-001	Reduction housing	1	74	5L-67	Clutch pressure plate	1
9	10-17-053-001	Bearing spacer	1	75	71-159	Thrust washer	1
10	10-00-133-009	Bearing cup	1	76	71-97	Pressure plate spring	12
11	10-00-133-010	Bearing cone	1	77	71-140	Baffle	1
12	10-17-171-001	Reduction unit main shaft	1	78	5C-A66A	Clutch inner plate assembly (10-18)	7
13	10-00-139-013	Snap ring	1	79	3-176	Clutch inner plate assembly (10-17)	5
14	10-17-179-001	Sun gear hub	1	80	5C-175A	Clutch plate (10-18)	6
15	47768B	7/16-14 x 7/8 Hex head bolt	4	81	4755	Clutch plate (10-17)	4
16	10-17-165-001	Sun gear	1	82	4755	Clutch pressure plate	1
17	L4-A150	Pinion cage assembly	1	83	3-37	Clutch spring snap ring	1
18	4734	Snap ring	1	84	5C-33	Clutch spring	1
19	L3-6	Ring gear	1	85	5L-36	Clutch spring bearing ring	1
20	L4-16	Input gear	1	86	71-45	Clutch ring	1
21	4756D	Snap ring	1	87	5M-122	Forward clutch piston	1
22	L4-146	Adapter gasket-rear	1	88	72-70	Sealing ring	1
23	4853D	7/16-14 x 1 Lock bolt	6	89	71-70	Forward clutch cylinder (10-18)	1
24	115550	7/16 Lockwasher	6	90	71-15B	Forward clutch cylinder (10-17)	1
25	L4-8B	Reduction unit adapter	1	91	8108A	Thrust washer	1
26	B111AG	Annular bearing	1	92	B107A	Bearing (10-18)	1
27	103321	3/8 Lockwasher	6	93	4559A	Bearing (10-17)	1
28	179840	3/8-16 x 1-1/8 Hex head bolt	6	94	4734	Snap ring (10-18)	1
29	4766	Snap ring	1	95	4766B	Snap ring (10-17)	1
30	L4-145	Reduction adapter gasket-front	1	96	R6A-7-1/2	Snap ring (10-18 only)	1
31	179791	1/4-20 x 1/2 Hex head bolt	3	97	4822	Snap ring (10-17)	1
32	71-4	VAlve cover	1	98	72-A66B	Ring gear snap ring	1
33	71-14	VAlve cover gasket	1	99	72-176	Reverse clutch plate assembly (10-18)	3
34	4821	Snap ring	1	100	71-71	Reverse clutch plate assembly (10-17)	2
35	71-246	Valve spring retainer	1	101	71-35	Outer clutch plate (10-18)	2
36	71-242	VAlve spring	1	102	4805A	Outer clutch plate (10-17)	1
37	71-243	Pressure regulator valve	1	103	4840D	Reverse clutch pressure plate	1
38	71-244A	Forward & reverse gear transmission valve	1	104	4804G	Reverse clutch piston	1
39	71-A244A	Valve & spring assembly (items 35 thru 39)	1	105	71-144B	Sealing ring	1
N.I.	4804H	"O" Ring	1	106	444858	Needle bearing	1
40	10-00-191-002	3/8-18 Plastic shipping plug	1		71C-A8	Sealing ring	1
41	A4740G	Breather assembly	1		4911	Case & adapter gasket	1
42	444866	3/8-18 Pipe plug	1		71C-A60	1/4 Pipe plug	1
43	444687	1/8-27 Dryseal plug	1		Not serviced	Forward and reverse adapter	1
44	10-04-034-002	Tube	1		3-61	3/8-16 x 1-1/4 Cap screw	4
N.I.	10-04-559-001	Dipstick	1		10-00-044-014	Pump assembly	1
45	71-42	Poppet spring	1		10-00-183-021	Pump drive gear (order pump assembly)	1
46	453632	5/16 Steel ball	1			Pump driven gear (order pump assembly)	1
47	71-798	Forward & reverse shift lever	1			Pump gasket	1
48	115729	5/16-24 Hex nut	1			Pump housing (order pump assembly)	1
49	108579	5/16 Lockwasher	1			Oil seal assembly	1
50	103340	Control lever washer	1			5/16-18 x 1-3/8 Hex head bolt	4
51	10-00-191-002	3/8-18 Plastic shipping plug	1				
52	4885B	Bushing	1				
53	71C-84	Oil return tube	1				
54	71C-A98A	Oil strainer assembly	1				
55	72-A1K	Transmission case with bushing (10-18)	1				
56	71-A1K	Transmission case with bushing (10-17)	1				
57	4622E	Dowel pin (10-18)	3				
	R6-177	Dowel pin (10-17)	3				
58	Kit A4867VV	Presized case bushing (two in kit)	1				
59	10-18-659-002	Pinion cage & output shaft assembly (10-18)	1				
	10-17-659-002	Pinion cage & output shaft assembly (10-17)	1				
60	Kit A4867DD	2 Presized bushings in kit	2				
61	Kit A4867DD	Presized bushing	1				
62	71-17	Thrust washer	1				
63	124553	Woodruff key (10-18 only)	1				
	218211	Woodruff key (10-17)	1				
64	72C-2A16	Drive gear & plug assembly (10-18)	1				
	71C-3A16	Drive gear & plug assembly (10-17)	1				
65	4873	Woodruff key	1				
66	72-40	Forward clutch hub (10-18 only)	1				
	71-40	Forward clutch hub (10-17)	1				

N.I.—NOT ILLUSTRATED

Warner Gear

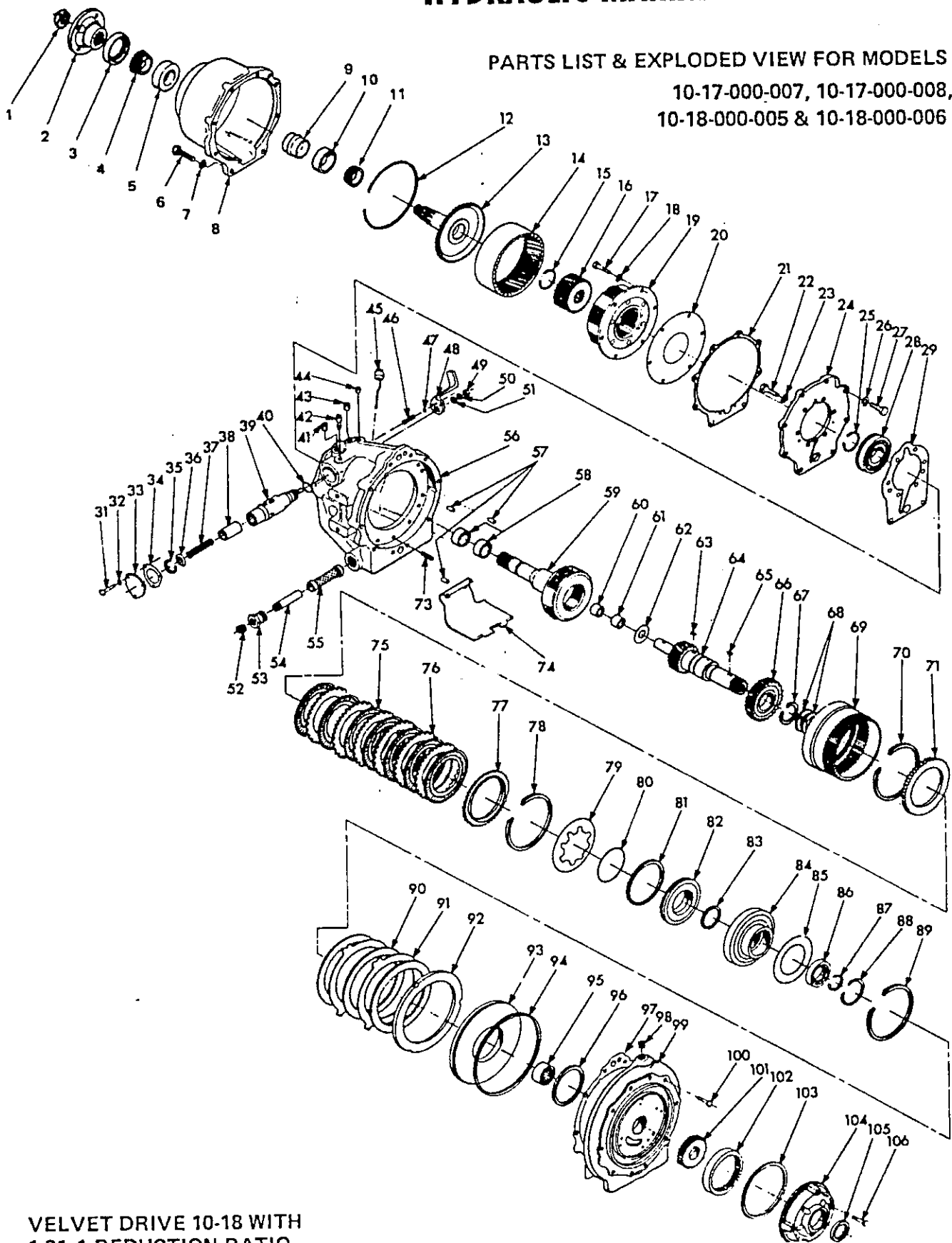
BORG WARNER *Transportation
Equipment

Division of Borg-Warner Corporation
P.O. Box 2688, Muncie, Indiana 47302
Telephone: 317/286-6100 Telex: 027-49

VELVET DRIVE HYDRAULIC MARINE TRANSMISSION

PARTS LIST & EXPLODED VIEW FOR MODELS

10-17-000-007, 10-17-000-008,
10-18-000-005 & 10-18-000-006



VELVET DRIVE 10-18 WITH
1.91:1 REDUCTION RATIO

PARTS LIST FOR MARINE UNITS WITH 1.91:1 REDUCTION RATIO

INDEX NO.	W.G. PART NO.	DESCRIPTION	NO. REQ.	INDEX NO.	W.G. PART NO.	DESCRIPTION	NO. REQ.
	47750	Main shaft nut 1000-149-012	1	68	4806J	Sealing ring	2
1	10-00-031-001	Coupling	1	69	72-6	Ring gear (10-18)	1
2	10-00-044-017	Oil seal	1		71-6	Ring gear (10-17)	1
3	10-00-133-002	Bearing cone	1	70	4768	Snap ring, selective .050-.054, green	1
4	10-00-133-001	Bearing cup	1		4768A	(10-18 only) .074-.078, orange	1
5	179864	7/16-14 x 1-3/4 Hex head bolt	2		4768B	.096-.100, white	1
6	103322	7/16 Lockwasher	2	71	5L-67	Clutch pressure plate	1
7	10-17-065-003	Reduction housing	1	73	71-97	Pressure plate spring	12
8	10-17-053-001	Bearing spacer	1	74	71-140	Baffle	1
9	10-00-133-009	Bearing cup	1	75	5C-A66A	Clutch inner plate assembly (10-18)	7
10	10-00-133-010	Bearing cone	1			Clutch inner plate assembly (10-17)	5
11	4756D	Snap ring	1	76	3-176	Clutch plate (10-18)	6
12	10-17-171-002	Reduction unit main shaft	1			Clutch plate (10-17)	4
13	L3-6	Ring gear	1	77	5C-175A	Clutch pressure plate	1
14	4734	Snap ring	1	78	4755	Clutch spring snap ring	1
15	L7-104	Sun gear	1	79	3-37	Clutch spring	1
16	4853B	Lock bolt 5/16-18 x 3/4	6	80	5C-33	Clutch spring bearing ring	1
17	114605	5/16 Lockwasher	6	81	5L-36	Clutch ring	1
18	L9-A150	Pinion cage and gear assembly	1	82	71-45	Forward clutch piston	1
19	L9-99	Lube oil strainer	1	83	5M-122	Sealing ring	1
20	L4-146	Reduction adapter gasket, rear	1	84	72-70	Forward clutch cylinder (10-18)	1
21	4853D	7/16-14 x 1 Lock bolt	6		71-70	Forward clutch cylinder (10-17)	1
22	115550	7/16 Lockwasher	6	85	71-15B	Thrust washer	1
23	L9-8A	Reduction unit adapter	1	86	8108A	Bearing (10-18)	1
24	4816	Snap ring	1		8107A	Bearing (10-17)	1
25	179840	3/16-18 x 1-1/8 Hex head bolt	6	87	4559A	Snap ring (10-18)	1
26	103321	3/8 Lockwasher	6		4734	Snap ring (10-17)	1
27	B308AGS	Annular bearing	1	88	4766B	Snap ring (10-18 only)	1
28	L4-145	Reduction housing gasket - front	1		R6A-7-1/2	Snap ring (10-17)	1
29	179791	1/4-20 x 1/2 Hex head bolt	3	89	4822	Ring gear snap ring	1
30	71-4	Valve cover	1	90	72-A66B	Reverse clutch plate assembly (10-18)	3
31	71-14	Valve cover gasket	1			Reverse clutch plate assembly (10-17)	2
32	4821	Snap ring	1	91	72-176	Outer clutch plate (10-18)	2
33	71-246	Valve spring retainer	1			Outer clutch plate (10-17)	1
34	71-242	Valve spring	1	92	71-71	Reverse clutch pressure plate	1
35	71-243	Pressure regulator valve	1	93	71-35	Reverse clutch piston	1
36	71-244A	Forward & reverse gear transmission valve	1	94	4805A	Sealing ring	1
37	71-A244A	Valve & spring assembly (items 35 thru 39)	1	95	4840D	Needle bearing	1
38	4804H	"O" Ring	1	96	4804G	Sealing ring	1
39	10-00-191-002	3/8-18 Plastic shipping plug	1	97	71-144B	Case & adapter gasket	1
40	A4740G	Breather assembly	1	98	444858	1/4 Pipe plug	1
41	444866	3/8-18 Pipe plug	1	99	71C-A8	Forward and reverse adapter	1
42	444687	1/8-27 Dryseal plug	1	100	4911	3/8-16 x 1-1/4 Cap screw	4
43	10-04-034-002	Tube	1	N.I.	71C-A60	Pump assembly	1
44	10-04-559-001	Dipstick	1	101	Not serviced	Pump drive gear (order pump assembly)	1
45	71-42	Poppet spring	1	102	Not serviced	Pump driven gear (order pump assembly)	1
46	453632	5/16 Steel ball	1	103	3-61	Pump gasket	1
47	71-79B	Forward & reverse shift lever	1	104	Not serviced	Pump housing (order pump assembly)	1
48	115729	5/16-24 Hex nut	1	105	10-00-044-014	Oil seal assembly	1
49	108579	5/16 Lockwasher	1	106	10-00-183-021	5/16-18 x 1-3/8 Hex head bolt	4
50	103340	Control lever washer	1				
51	10-00-191-002	3/8-18 Plastic shipping plug	1				
52	4885B	Bushing	1				
53	71C-84	Oil return tube	1				
54	71C-A98A	Oil strainer assembly	1				
55	72-A1K	Transmission case with bushing (10-18)	1				
56	71-A1K	Transmission case with bushing (10-17)	1				
57	4622E	Dowel pin (10-18)	3				
58	R6-177	Dowel pin (10-17)	3				
59	Kit A4867VV	Presized case bushing (two in kit)	1				
60	72-1A2C	Pinion cage & output shaft assembly (10-18)	1				
61	71-1A2C	Pinion cage & output shaft assembly (10-17)	1				
62	Kit A4867DD	2 Presized bushings in kit	2				
63	71-17	Thrust washer	1				
64	124553	Woodruff key (10-18 only)	1				
65	218211	Woodruff key (10-17)	1				
66	72C-2A16	Drive gear & plug assembly (10-18)	1				
67	71C-3A16	Drive gear & plug assembly (10-17)	1				
	4873	Woodruff key	1				
	72-40	Forward clutch hub (10-18 only)	1				
	71-40	Forward clutch hub (10-17)	1				
	4495	Snap ring	1				

N.I.—NOT ILLUSTRATED

Warner Gear

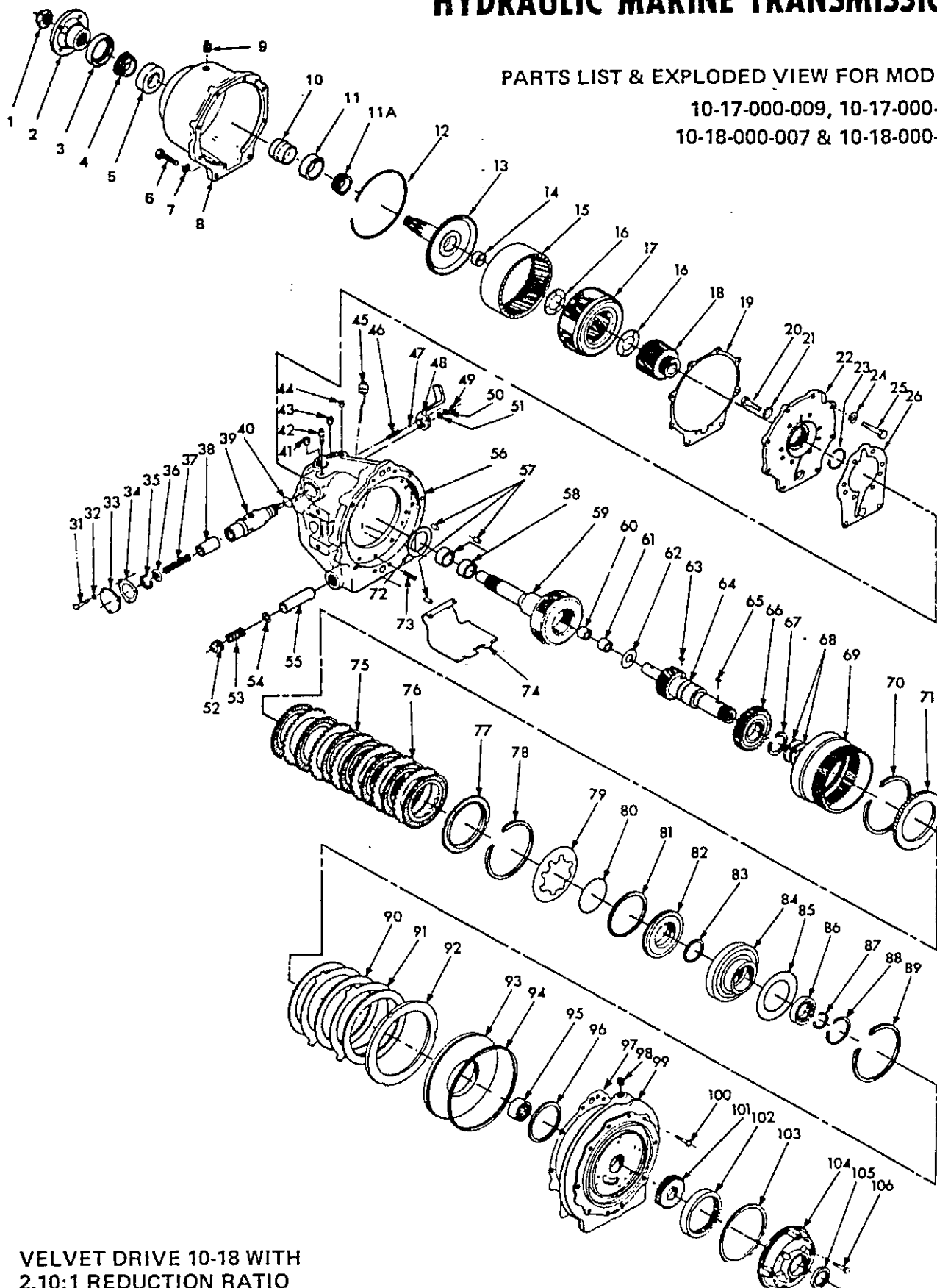
BORG WARNER Transportation Equipment

Division of Borg-Warner Corporation
P.O. Box 2688, Muncie, Indiana 47302
Telephone: 317/286-6100 Telex: 027-46

VELVET DRIVE HYDRAULIC MARINE TRANSMISSION

PARTS LIST & EXPLODED VIEW FOR MODELS

10-17-000-009, 10-17-000-010,
10-18-000-007 & 10-18-000-008



VELVET DRIVE 10-18 WITH
2.10:1 REDUCTION RATIO

PARTS LIST FOR MARINE UNITS WITH 2.10:1 REDUCTION RATIO

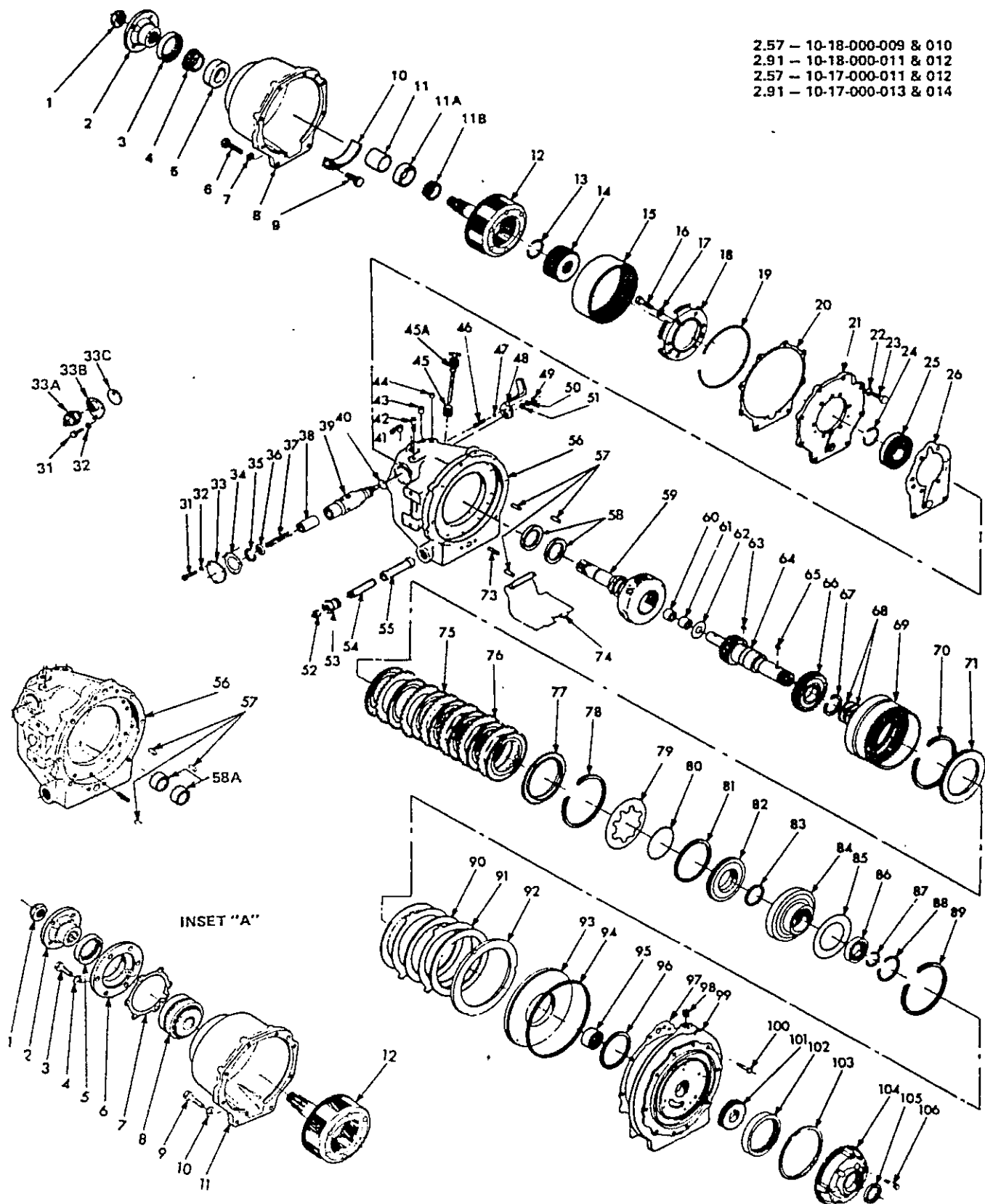
INDEX NO.	W.G. PART NO.	DESCRIPTION	NO. REQ.	INDEX NO.	W.G. PART NO.	DESCRIPTION	NO. RE
1	4775D	Main shaft nut 1000-149-012	1	68	4806J	Sealing ring	2
2	10-00-031-001	Coupling	1	69	72-6	Ring gear (10-18)	1
3	10-00-044-017	Oil seal	1		71-6	Ring gear (10-17)	1
4	10-00-133-002	Bearing cone	1	70	4768	Snap ring, selective .050-.054, green	1-
5	10-00-133-001	Bearing cup	1		4768A	(10-18 only) .074-.078, orange	1
6	179864	7/16-14 x 1-3/4 Hex head bolt	2		4768B	.096-.100, white	1
7	103322	7/16 Lockwasher	2	71	5L-67	Clutch pressure plate	1
8	10-17-065-002	Reduction housing	1	72	71-159	Thrust washer	1
9	10-00-191-002	Plastic plug	1	73	71-97	Pressure plate spring	12
10	10-17-053-001	Bearing spacer	1	74	71-140	Baffle	1
11	10-00-133-009	Bearing cup	1	75	5C-A66A	Clutch inner plate assembly (10-18)	7
11A	10-00-133-010	Bearing cone	1			Clutch inner plate assembly (10-17)	5
12	4756D	Snap ring	1	76	3-176	Clutch plate (10-18)	6
13	10-17-171-002	Output shaft	1			Clutch plate (10-17)	4
14	A4867DD	2 Output shaft bushing kit	1	77	5C-175A	Clutch pressure plate	1
15	L3-6	Ring gear	1	78	4755	Clutch spring snap ring	1
16	3-24	Thrust washer	2	79	3-37	Clutch spring	1
17	10-17-659-006	Pinion cage and gear assembly (C units)	1	80	5C-33	Clutch spring bearing ring	1
	10-17-659-010	Pinion cage and gear assembly (CR units)	1	81	5L-36	Clutch ring	1
18	10-17-165-002	Sun gear	1	82	71-45	Forward clutch piston	1
19	L4-146	Adapter gasket - rear	1	83	5M-122	Sealing ring	1
20	4853D	7/16-14 x 1 Lock bolt	6	84	72-70	Forward clutch cylinder (10-18)	1
21	115550	7/16 Lock washer	6		71-70	Forward clutch cylinder (10-17)	1
22	L5-8A	Reduction unit adapter	1	85	71-15B	Thrust washer	1
23	4766A	Snap ring	1	86	8108A	Bearing (10-18)	1
24	103321	3/8 Lock washer	8		8107A	Bearing (10-17)	1
25	179840	3/8-16 x 1-1/8 Hex head bolt	6	87	4559A	Snap ring (10-18)	1
26	L4-145	Reduction adapter gasket-front	1		4734	Snap ring (10-17)	1
31	179791	1/4-20 x 1/2 Hex head bolt	3	88	7666B	Snap ring (10-18)	1
33	71-4	Valve cover	1		R6A-7-1/2	Snap ring (10-17)	1
34	71-14	Valve cover gasket	1	89	4822	Ring gear snap ring	1
35	4821	Snap ring	1	90	72-A66B	Reverse clutch plate assembly (10-18)	3
36	71-246	Valve spring retainer	1			Reverse clutch plate assembly (10-17)	2
37	71-242	Valve spring	1	91	72-176	Outer clutch plate (10-18)	2
38	71-243	Pressure regulator valve	1			Outer clutch plate (10-17)	1
39	71-244A	Forward & reverse gear transmission valve	1	92	71-71	Reverse clutch pressure plate	1
N.I.	71-A244A	Valve & spring assembly (items 35 thru 39)	1	93	71-35	Reverse clutch piston	1
40	4804H	"O" Ring	1	94	4805A	Sealing ring	1
41	10-00-191-002	3/8-18 Plastic shipping plug	1	95	4840D	Needle bearing	1
42	A4740G	Breather assembly	1	96	4804G	Sealing ring	1
43	444866	3/8-18 Pipe plug	1	97	71-144B	Case & adapter gasket	1
44	444687	1/8-27 Dryseal plug	1	98	444858	1/4 Pipe plug	1
45	10-04-559-001	Dipstick	1	99	71C-A8	Forward and reverse adapter	1
N.I.	10-04-034-002	Dipstick tube	1	100	4911	3/8-16 x 1-1/4 Cap screw	4
46	71-42	Poppet spring	1	N.I.	71C-A60	Pump assembly	1
47	453632	5/16 Steel ball	1	101	Not serviced	Pump drive gear (order pump assembly)	1
48	71-79B	Forward & reverse shift lever	1	102	Not serviced	Pump driven gear (order pump assembly)	1
49	115729	5/16-24 Hex nut	1	103	3-61	Pump gasket	1
50	108579	5/16 Lockwasher	1	104	Not serviced	Pump housing (order pump assembly)	1
51	103340	Control lever washer	1	105	10-00-044-014	Oil seal assembly	1
52	444592	3/4 Pipe plug	1	106	10-00-183-021	5/16-18 x 1-3/8 Hex head bolt	4
53	5L-222	Spring	1				
54	35-143	Flat washer	1				
55	72C-98	Oil inlet shield	1				
56	72-A1K	Transmission case with bushing (10-18)	1				
	71-A1K	Transmission case with bushing (10-17)	1				
57	4622E	Dowel pin (10-18)	3				
	R6-177	Dowel pin (10-17)	3				
58	Kit A4867VV	Presized case bushing (two in kit)	1				
59	10-17-659-004	Pinion cage & output shaft assembly (10-18)	1				
	10-18-659-004	Pinion cage & output shaft assembly (10-17)	1				
60	Kit A4867DD	2 Presized bushings	1				
61							
62	71-17	Thrust washer	1				
63	124553	Woodruff key (10-18 only)	1				
	218211	Woodruff key (10-17)	1				
64	72C-2A16	Drive gear & plug assembly (26 spline) (10-18)	1				
	71C-3A16	Drive gear & plug ass.y. (26 spline) (10-17)	1				
65	4873	Woodruff key	1				
66	72-40	Forward clutch hub (10-18 only)	1				
	71-40	Forward clutch hub (10-17)	1				
67	4495	Snap ring	1				

N.I.-NOT ILLUSTRATED

Warner Gear

BORG WARNER Transportation Equipment

Division of Borg-Warner Corporation
P.O. Box 2688, Muncie, Indiana 47302
Telephone: 317/28606100 Telex: 027-41



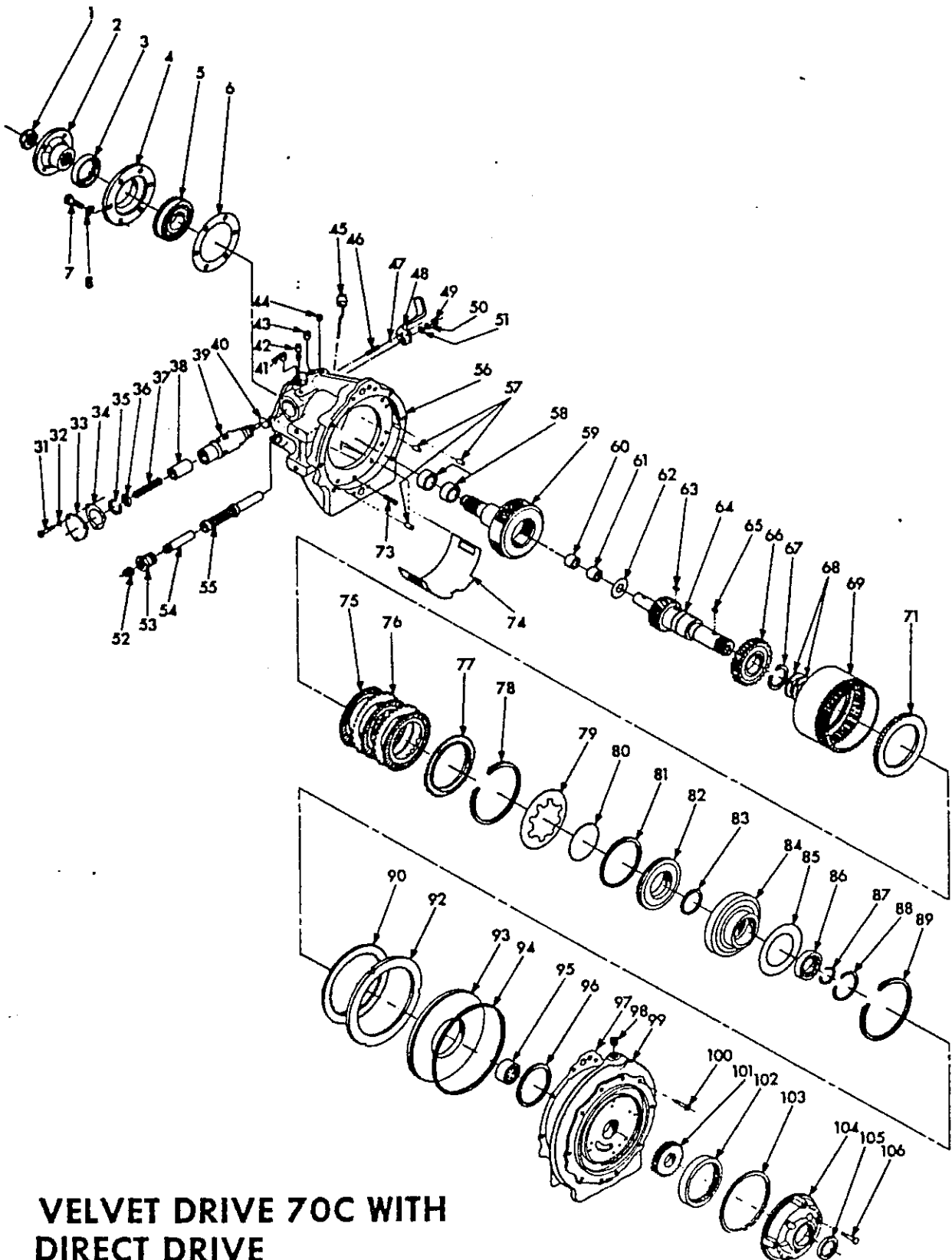
PARTS LIST FOR
 10-18-000-009, 10-18-000-0010, 10-18-000-011, 10-18-000-012, AS14-72C, AS15-72C,
 10-17-000-011, 10-17-000-012, 10-17-000-013, 10-17-000-014, AS14-71C & AS14-71C

INDEX NO.	PART NUMBER	PART NAME OR DESCRIPTION	NO. REQ'D.	INDEX NO.	PART NUMBER	PART NAME OR DESCRIPTION	NO. REQ'D.
1	10-00-149-012	Mainshaft nut — flanged	1	60	A4867DD	Two presized bushings in kit—one kit for	1
2	10-00-131-001	Coupling	1	61	A4867DD	current unit — two for early units	1
3	10-00-044-017	Oil seal	1	62	71-17	Thrust washer	1
4	10-00-133-002	Bearing cone	1	63	0000124553	Woodruff key (72C & 10-18)	1
5	10-00-133-001	Bearing cup	1		0000218211	Woodruff key (70C, 71C & 10-17)	1
6	0000179864	7/16-14 x 1-3/4 Hex head bolt	2	64	72C-2A16	Drive gear & plug Assy. (72C & 10-18)	1
7	0000103322	7/16 Lockwasher	2		71C-3A16	Drive gear & plug Assy.(70C, 71 & 10-17)	1
8	10-17-065-001	Reduction housing	1	65	4873	Woodruff key	1
9	47768B	7/16-14 x 7/8 Hex lock bolt	2	66	72-40	Forward clutch hub (72C & 10-18)	1
10	10-17-036-001	Oil baffle	1		71-40	Forward clutch hub (70C, 71C & 10-17)	1
11	10-17-053-002	Solid spacer-.820-.821" (20.83-20.85mm)	1	67	4495	Snap ring	1
	10-17-053-003	Solid spacer-.829-.830" (21.06-31.08mm)	1	68	4806J	Sealing ring	2
	10-17-053-004	Solid spacer-.832-.833" (21.13-21.16mm)	1	69	72-6	Ring gear (72C & 10-18)	1
	10-17-053-005	Solid spacer-.835-.836" (21.21-21.23mm)	1		71-6	Ring gear (70C, 71C & 10-17)	1
	10-17-053-006	Solid spacer-.838-.839" (21.29-21.31mm)	1	70	4768	.054-.059" (1.37-1.50 mm) Snap ring	1
	10-17-053-007	Solid spacer-.841-.842" (21.36-21.39mm)	1		4768A	.074-.078" (1.88-1.98 mm) Snap ring	1
	10-17-053-008	Solid spacer-.844-.845" (21.44-21.46mm)	1		4768B	.096-.100" (2.44-2.54 mm) Snap ring	1
	10-17-053-009	Solid spacer-.847-.848" (21.51-21.54mm)	1		10-00-139-019	.084-.088" (1.88-1.98 mm) Snap ring	1
	10-17-053-010	Solid spacer-.850-.851" (21.59-21.62mm)	1	71	5L-67	Clutch pressure plate	1
		* Use as required on 10-17 & 10-18 units—		73	71-97	Pressure plate spring	12
		may be used to replace the collapsible spacer		74	71-140	Oil baffle	1
11A	10-00-133-009	Bearing cup (10-17 & 10-18)	1	75	12-A66	Clutch friction plate (72C & 10-18)	7
11B	10-00-133-010	Bearing cone (10-17 & 10-18)	1			(71C & 10-17)	5
12	10-17-659-007	Pinion cage & output shaft (2.57 units)	1			(70C)	3
	10-17-659-008	Pinion cage & output shaft (2.91 units)	1		5C-A66A	Bronze clutch plate(may be used optionally	
13	4734	Snap ring	1			for 12-A66)	
14	L6-104	Sun gear (2.57 units)	1	76	3-176	Steel clutch plate (72C & 10-18)	6
	L7-104	Sun gear (2.91 units)	1			(71C & 10-17)	4
15	L3-6	Ring gear (2.91 units)	1			(70C)	2
	L6-6	Ring gear (2.57 units)	1	77	5C-175A	Clutch pressure plate	1
16	4853E	Lock bolt	6	78	4755	Clutch spring snap ring	1
17	0000115550	7/16 Lockwasher	6	79	3-37	Clutch spring	1
18	L6-31	Stationary gear plate (2.57 units)	1	80	5C-33	Clutch spring bearing ring	1
	L7-31	Stationary gear plate (2.91 units)	1	81	5L-36	Clutch sealing ring	1
19	4756E	Snap ring (2.57 units)	1	82	71-45	Clutch piston	1
	4756D	Snap ring (2.91 units)	1	83	5M-122	Sealing ring	1
20	L4-146	Adapter gasket — rear	1	84	72-70	Forward clutch cylinder (72C & 10-18)	1
21	L7-8A	Reduction unit adapter	1		71-70	Forward clutch cylinder (71C & 10-17)	1
22	0000103321	3/8 Lockwasher	6	85	71-158	Thrust washer	1
23	0000179840	3/8-16 x 1-1/8 Hex head bolt	6	86	B108A	Annular bearing (72C & 10-18)	1
24	4816	Snap ring	1		B107A	Annular bearing (70C, 71C & 10-17)	1
25	B308AGS	Annular bearing	1	87	4559A	Snap ring (72C & 10-18)	1
26	L4-145	Adapter gasket — front	1		4734	Snap ring (70C, 71C & 10-17)	1
31	0000179793	1/4-20 x 5/8 Hex head bolt (for valve cover)	3	88	4766B	Snap ring (72C & 10-18)	1
	0000179796	1/4-20 x 7/8 Hex head bolt(for neutral switch)	3		R6A-7½	Snap ring (70C, 71C & 10-17)	1
32	0000103319	1/4 Lockwasher	3	89	4822	Ring gear snap ring	1
33	71-4	Valve cover	1	90	10-17-666-001	Reverse clutch plate (72C * 10-18)	3
33A	10-06-640-004	Neutral switch & "O" ring assembly	1			(71C & 10-17)	2
		(Note items 33B & 33A must be used		72-A66A	Bronze clutch plate (used interchangeably		
		together when replacing early switch)			with 10-17-666-001		
N.I.	10-00-141-046	"O" Ring for switch	1	72-A66	Thin bronze plate (this plate is required for a		
33B	10 16-039-001	Valve cover	1		few early units and two of these plates must		
33C	71-103	Switch cam	1		be used with one steel plate to replace the		
34	71-14	Valve cover gasket	1		fiber plate 71-86)		
35	4821	Snap ring	1	91	72-176	Steel clutch plate (72C & 10-18)	2
36	71-246	Valve cover retainer	1			(71C & 10-17)	1
37	71-242	Spring (used with bushing in case)	1	92	71-71	Reverse clutch pressure plate	1
	72N-242	Spring (used with sealing rings in shaft)	1	93	71-35	Reverse clutch piston	1
38	71-243	Pressure regulator valve	1	94	4805A	Sealing ring	1
	10-04-739-001	Valve & spring assembly	1	95	4840D	Needle bearing	1
	71-A244A	Valve & spring assembly	1	96	4804G	Sealing ring	1
39	71-244A	Forward & reverse shift valve	1	97	71-144B	Case & adapter gasket	1
40	4804H	"O" Ring	1	98	0000444858	1/4 Pipe plug	1
41	10-00-191-002	3/8 Plastic shipping plug	1	99	71C-A8	Forward & reverse adapter	1
42	A4740G	Breather—current	1	100	4911	3/8-16 x 1-1/4 Cap screw	4
	4740B	Breather—early units—drive in	1	101	Order assembly	Pump drive gear	1
	AJ2-87	Breather—early units—screw in	1	102	Order assembly	Pump driven gear	1
43	0000444866	3/8-18 Pipe plug	1	103	3-61	Pump gasket	1
44	0000444687	1/8-27 Pipe plug	1	104	Order assembly	Pump housing	1
45	10-04-034-002	Dipstick tube	1	105	10-00-044-014	Oil seal assembly	1
45A	10-04-559-001	Dipstick (used with tube)	1		71C-62A	Oil seal Assy. (optional with 10-00-044-014)	1
	71-1A195	Dipstick (tube not required)	1	106	10-00-183-021	5/16-18 x 1-3/8 Hex head bolt (current units)	4
46	71-42	Poppet spring	1		0000179822	5/16-18 x 1-1/2 Hex head bolt (used with	
47	0000453362	5/16 Steel ball	1			early pumps)	
48	71-79B	Forward & reverse shift lever	1	SEE INSET "A"			
49	0000115729	5/16-24 Hex nut	1	1	10-00-149-012	Main shaft nut	1
50	0000108579	5/16 Lockwasher	1	2	4912	Coupling	1
51	0000103349	Control lever washer	1	3	179860	7/16-14 x 1-1/4 Hex head bolt	6
52	10-00-191-002	3/8-18 Plastic shipping plug	1	4	103322	7/16 Lockwasher	6
53	4885B	Bushing	1	5	71C-110	Oil seal	1
54	71C-84	Oil return tube	1	6	L4-7	Bearing retainer	1
55	71C-A98A	Oil strainer assembly	1	7	L4-147	Bearing retainer gasket	1
56	72-A1K	Trans. case with bushings(72C & 10-18)	1	8	4920	Bearing	1
	71-A1K	Trans. case with bushings(71C & 10-17)	1	9	179864	7/16-14 x 1-3/4 Hex head bolt	2
	71-A1L	Trans. case with bushings(70C)	1	10	103322	7/16 Lockwasher	2
	10-18-565-002	Trans. case without bushings (10-18)	1	11	L7-1A	Reduction housing (current)	1
	10-17-565-002	Trans. case without bushings (10-17)	1		L7-1	Reduction housing (early)	1
57	71-87	Dowel pin (70C with fiber plate)	3	12	L6-A2D	Pinion cage & driven shaft Assy.(2.57:1 only)	1
	71-87A	Dowel pin (70C with metallic plate)	3		L7-A2D	Pinion cage & driven shaft Assy.(2.91:1 only)	1
	R6-177	Dowel pin (71C & 10-17)	3				
	4622E	Dowel pin (72C & 10-18)	3				
	4806B	Sealing rings (10-17 & 10-18)	4				
58A	A4867VV	Two presized bushings (See inset "B")	1				
59	71-1A2C	Pinion cage & output shaft (70C, 71C & 10-17)	1				
	72-1A2C	Pinion cage & output shaft (72C & 10-18)	1				
	10-17-659-018	Pinion cage & output shaft (10-17 with seal rings)	1				
	10-18-659-012	Pinion cage & output shaft (10-18 with seal rings)	1				

*Use as required. N.I. — NOT ILLUSTRATED

VELVET OUDERE TYPEN
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VELVET DRIVE® HYDRAULIC MARINE TRANSMISSION



VELVET DRIVE 70C WITH DIRECT DRIVE

FORM 1071 2/71

PRINTED IN U.S.A.

AS1-70C DIRECT DRIVE PARTS LIST

INDEX NO.	W. G. PART NO.	DESCRIPTION	NO. REQ.	INDEX NO.	W. G. PART NO.	DESCRIPTION	NO. REQ.
1	4745L	Main Shaft Nut	1	81	5L-36	Clutch Ring	1
2	4647BA	Coupling	1	82	71-45	Forward Clutch Piston	1
3	71C-110	Oil Seal	1	83	5M-122	Sealing Ring ("O" Ring)	1
4	70-7	Bearing Retainer	1	84	71-70	Forward Clutch Cylinder	1
5	B208AGS	Annular Bearing	1	85	71-158	Thrust Washer	1
6	71-147	Bearing Retainer Gasket	1	86	8107A	Bearing	1
7	179859	7/16-14 X 1-1/8 Hex Head Bolt	6	87	4734	Snap Ring	1
8	103322	7/16 Lockwasher	6	88	R8A-71/2	Snap Ring	1
31	179793	1/4-20 X 5/8 Hex Head Nut	3	89	4822	Ring Gear Snap Ring	1
32	103319	1/4 Lockwasher	3	90	72-A668	Reverse Clutch Plate Assembly	1
33	71-4	Valve Cover	1	92	71-71	Reverse Clutch Pressure Plate	1
34	71-14	Valve Cover Gasket	1	93	71-36	Reverse Clutch Piston	1
N.I.	71-A244A	Valve & Spring Assembly (Items 35,36,37,38 & 39)	1	94	4805A	Sealing Ring	1
36	4821	Snap Ring	1	95	48400	Needle Bearing	1
36	71-246	Valve Spring Retainer	1	96	4804G	Sealing Ring	1
37	71-242	Valve Spring	1	97	71-1448	Case & Adapter Gasket	1
38	71-243	Pressure Regulator Valve	1	98	444858	1/4 Pipe Plug	1
39	71-244A	Forward & Reverse Gear Transmission Valve	1	99	71C-8	Forward & Reverse Adapter	1
40	4804H	"O" Ring	1	100	4911	3/8-16 X 1-1/4 Cap Screw	1
41	10-00-191-002	3/8-18 Plastic Plug	1	N.I.	71C-A60	Pump Assembly (Includes 101,102,104, & 106)	1
42	A4740G	Breather Assembly	1	101	Not Serviced	Pump Drive Gear (Order Assembly)	1
43	444866	3/8-18 Pipe Plug	2	102	Not Serviced	Pump Driven Gear (Order Assembly)	1
44	444867	1/8-27 Pipe Plug	1	103	3-61	Pump Gasket	1
45	71-1A196	Dipstick Assembly	1	104	Not Serviced	Pump Housing (Order Assembly)	1
46	71-42	Poppet Spring	1	105	71C-62A	Oil Seal Assembly	1
47	463632	5/16 Steel Ball	1	106	179822	5/16-18 X 1-1/2 Hex Head Bolt	1
48	71-798	Forward & Reverse Shift Lever	1				
49	116729	5/16-24 Hex Nut	1				
50	108579	5/16 Lockwasher	1				
51	103340	Control Lever Washer	1				
52	10-00-191-002	3/8-18 Plastic Plug	1				
53	48858	Bushing	1				
54	71C-84	Oil Return Tube	1				
55	71C-A98	Oil Strainer Assembly	1				
56	70B-A1A	Transmission Case	1				
57	71-87A	Dowel Pin	3				
58	Kit A4867VV	Case Bushings (Two Presized Bushings in Kit)	1				
59	71-1A2	Pinion Cage & Output Shaft Assembly	1				
60		Main Drive Gear Bushing (71-98 Presized)	1				
	Kit A4867DD	ONE OF EACH IN KIT	1				
61		Main Drive Gear Bushing (71-9C Presized)	1				
62	71-17	Thrust Washer	1				
63	218211	Woodruff Key	1				
64	71C-A18	Drive Gear & Plug Assembly	1				
65	4873	Woodruff Key	1				
66	71-40	Forward Clutch Hub	1				
67	4496	Snap Ring	1				
68	4806J	Sealing Ring	2				
69	70-6	Ring Gear	1				
71	5L-87	Clutch Pressure Plate	1				
73	71-87	Pressure Plate Spring	12				
74	71B-140	Baffle	1				
75	5C-A66A	Clutch Inner Plate Assembly	3				
76	3-176	Clutch Plate (Steel)	2				
77	5C-175A	Clutch Pressure Plate	1				
78	4755	Clutch Spring Snap Ring	1				
79	3-37	Clutch Spring	1				
80	5C-33	Clutch Spring Bearing Ring	1				

N.I. - NOT ILLUSTRATED

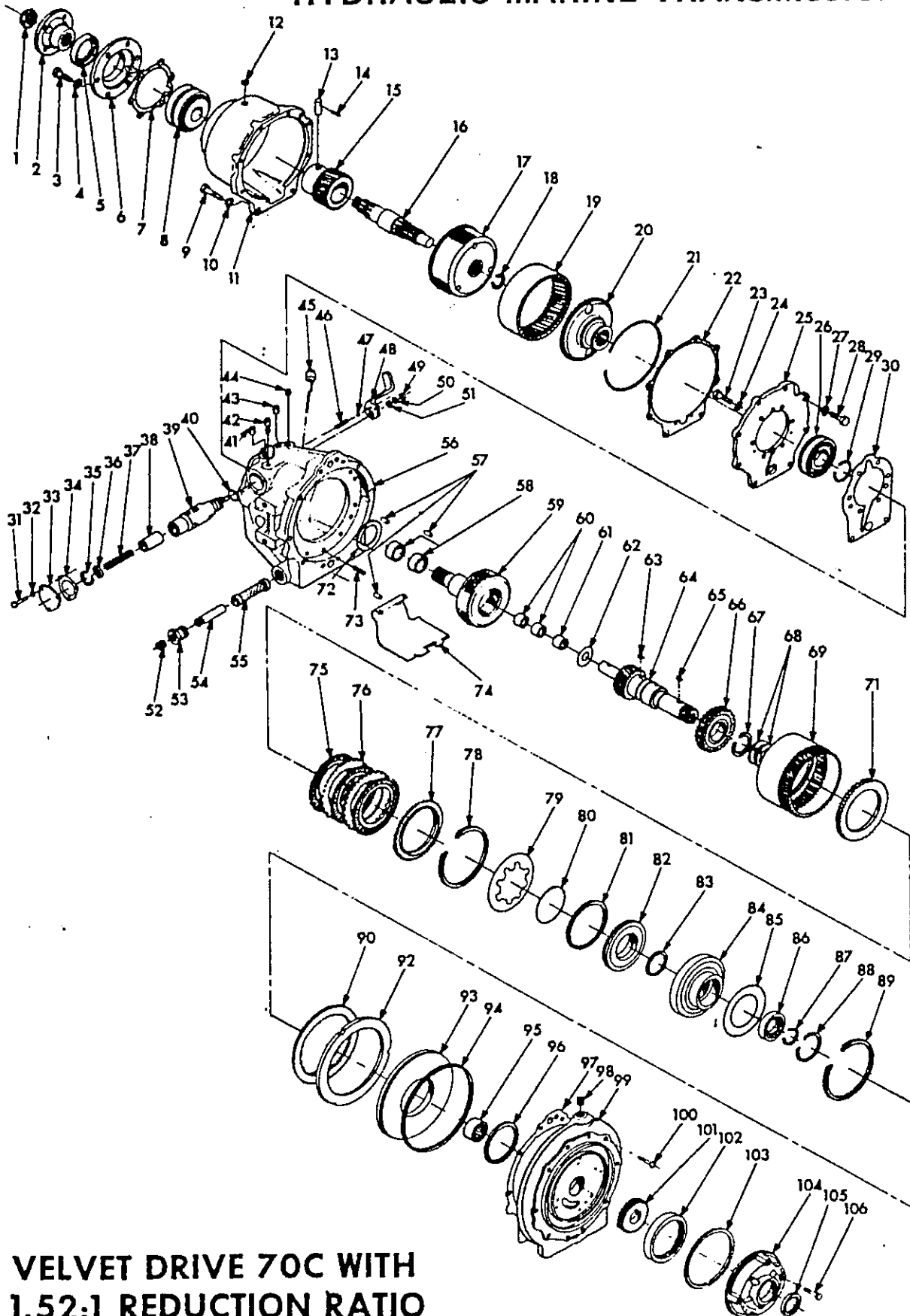
Warner Gear/Warner-Motive

General Offices, 1106 East Seymour Street, Muncie, Indiana 47302 Telephone: 317/284-8411

DIVISIONS OF BORG-WARNER CORPORATION



VELVET DRIVE® HYDRAULIC MARINE TRANSMISSION



VELVET DRIVE 70C WITH 1.52:1 REDUCTION RATIO

FORM 1075 2/71

PRINTED IN U.S.A.

AS2-70C 1.52:1 PARTS LIST

INDEX NO.	W. G. PART NO.	DESCRIPTION	NO. REQ.	INDEX NO.	W. G. PART NO.	DESCRIPTION	NO. REQ.
1	4775L	Main Shaft Nut	1	56	71-A1L	Transmission Case with Bushings	1
2	45475A	Coupling	1	57	71-87A	Dowel Pin	2
3	179660	7/16-14 X 1-1/4 Hex Head Bolt	6	58	Kit A4867VV	Presized Case Bushing (Two In Kit)	1
4	103322	7/16 Lockwasher	6	59	71-1A2A	Pinion Cage & Output Shaft Assembly	1
5	71C-110	Oil Seal	1	60		Presized Bushing	One of Each in Kit
6	L4-7	Bearing Retainer	1	61	Kit A4867DD	Presized Bushing	
7	L4-147	Bearing Retainer Gasket	1	62	71-17	Thrust Washer	1
8	4920A	Bearing	1	63	218211	Woodruff Key	1
9	179664	7/16-14 X 1-3/4 Hex Head Bolt	2	64	71C-A16	Drive Gear & Plug Assembly (26 Splines)	1
10	103322	7/16 Lockwasher	2	65	4873	Woodruff Key	1
11	L4-1A	Reduction Housing (Current)	1	66	71-40	Forward Clutch Hub	1
	L4-1	Reduction Housing (Early)	1	67	4495	Snap Ring	1
12	103891	Expansion Plug	1	68	4806J	Sealing Ring	2
13	L4-151	Pinion Cage Drive Pin	1	69	70-6	Ring Gear	1
14	4808	Spring Pin	1	71	5L-67	Clutch Pressure Plate	1
15	L4-4	Sun Gear	1	72	71-159	Thrust Washer	1
16	L4-2	Main Shaft	1	73	71-97	Pressure Plate Spring	12
17	L4-A150	Pinion Cage Assembly	1	74	71-140	Baffle	1
18	4734	Snap Ring	1	75	5C-A68A	Clutch Inner Plate Assembly	3
19	L3-6	Ring Gear	1	76	3-176	Clutch Plate	2
20	L4-16	Input Gear	1	77	5C-175A	Clutch Pressure Plate	1
21	4756D	Snap Ring	1	78	4765	Clutch Spring Snap Ring	1
22	L4-146	Adapter Gasket, Rear	1	79	3-37	Clutch Spring	1
23	4853D	7/16-14 X 1 Lock Bolt	6	80	5C-33	Clutch Spring Bearing Ring	1
24	114807	7/16 Lockwasher	6	81	5L-36	Clutch Ring	1
25	L4-88	Reduction Unit Adapter (Current)	1	82	71-46	Forward Clutch Piston	1
	L4-5	Reduction Unit Adapter (Early)	1	83	5M-122	Sealing Ring	1
26	8111AG	Bearing	1	84	71-70	Forward Clutch Cylinder	1
27	103321	3/8 Lockwasher	6	85	71-158	Thrust Washer	1
28	179640	3/8-18 X 1-1/8 Hex Head Bolt	6	86	8107A	Bearing	1
29	4766	Snap Ring	1	87	4734	Snap Ring	1
30	L4-145	Adapter Gasket, Front	1	88	R6A-71/2	Snap Ring	1
31	179793	1/4-20 X 5/8 Hex Head Bolt	3	89	4822	Ring Gear Snap Ring	1
32	103319	1/4 Lockwasher	3	90	72-A668	Reverse Clutch Plate Assembly	1
33	71-4	Valve Cover	1	92	71-71	Reverse Clutch Pressure Plate	1
34	71-14	Valve Cover Gasket	1	93	71-35	Reverse Clutch Piston	1
35	4821	Snap Ring	1	94	4805A	Sealing Ring	1
36	71-246	Valve Spring Retainer	1	95	48400	Needle Bearing	1
37	71-242	Valve Spring	1	96	4804G	Sealing Ring	1
38	71-243	Pressure Regulator Valve	1	97	71-1448	Case & Adapter Gasket	1
39	71-244A	Forward & Reverse Gear Transmission Valve	1	98	444858	1/4 Pipe Plug	1
N.I.	71-A244A	Valve & Spring Assembly (Items 36 thru 39)	1	99	71C-8	Forward & Reverse Adapter	1
40	4804H	"O" Ring	1	100	4811	3/8-16 X 1-1/4 Cap Screw	4
41	10-00-191-002	3/8-18 Plastic Shipping Plug	1	N.I.	71C-A60	Pump Assembly	1
42	A4740G	Breather Assembly	1	101	Not Serviced	Pump Drive Gear (Order Pump Assembly)	1
43	444866	3/8-18 Pipe Plug	1	102	Not Serviced	Pump Driven Gear (Order Pump Assembly)	1
44	444687	1/8-27 Dryseal Plug	1	103	3-61	Pump Gasket	1
45	71-1A195	Dipstick Assembly	1	104	Not Serviced	Pump Housing (Order Pump Assembly)	1
46	71-42	Poppet Spring	1	105	71C-62A	Oil Seal Assembly	1
47	453632	5/16 Steel Ball	1	106	179822	5/16-18 X 1-1/2 Hex Head Bolt	4
48	71-79B	Forward & Reverse Shift Lever	1				
49	115729	5/16-24 Hex Nut	1				
50	108579	5/16 Lockwasher	1				
51	103340	Control Lever Washer	1				
52	10-00-191-002	3/8-18 Plastic Shipping Plug	1				
53	48858	Bushing	1				
54	71C-84	Oil Return Tube	1				
55	71C-A98A	Oil Strainer Assembly	1				

N.I. - NOT ILLUSTRATED

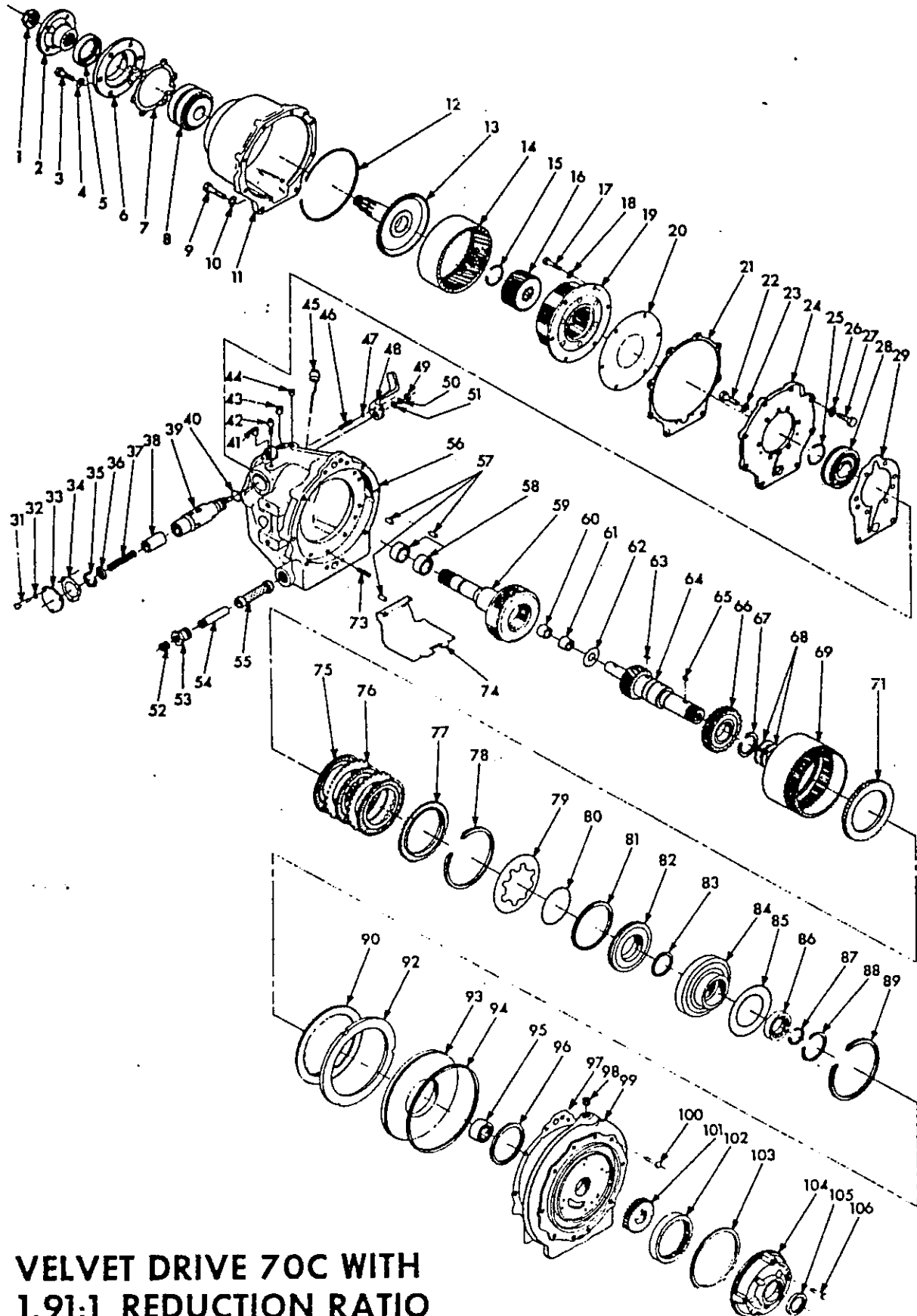
Warner Gear/Warner-Motive

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DIVISIONS OF BORG-WARNER CORPORATION



VELVET DRIVE® HYDRAULIC MARINE TRANSMISSION



**VELVET DRIVE 70C WITH
1.91:1 REDUCTION RATIO**

AS7-70C 1.91:1 PARTS LIST

INDEX NO.	W. G. PART NO.	DESCRIPTION	NO. REQ.	INDEX NO.	W. G. PART NO.	DESCRIPTION	NO. REQ.
1	4775L	Main Shaft Nut	1	57	71-87A	Dowel Pin	3
2	48478A	Coupling	1	58	Kit A4857VV	Presized Case Bushing (Two in Kit)	1
3	179660	7/16-14 X 1-1/4 Hex Head Bolt	6	59	71-1A2C	Pinion Cage & Output Shaft Assembly	1
4	103322	7/16 Lockwasher	6	60		Presized 71-98 Main	One of Each Bushing in Kit
5	71C-110	Oil Seal	1		Kit A4857DD	Drive Gear Bushing	
6	L4-7	Bearing Retainer	1	61		Presized 71-9C Main	
7	L4-147	Bearing Retainer Gasket	1			Drive Gear Bushing	1
8	4820A	Bearing	1	62	71-17	Thrust Washer	1
9	179664	7/16-14 X 1-3/4 Hex Head Bolt	2	63	218211	Woodruff Key	1
10	103322	7/16 Lockwasher	2	64	71C-A16	Drive Gear & Plug Assembly (26 Spline)	1
11	L5-1A	Reduction Housing (Current)	1	65	4873	Woodruff Key	1
12	L5-1	Reduction Housing (Early)	1	66	71-40	Forward Clutch Hub	1
13	4756D	Snap Ring	1	67	4495	Snap Ring	1
14	L9-2	Reduction Unit Main Shaft	1	68	4806J	Sealing Ring	2
15	L3-6	Ring Gear	1	69	70-6	Ring Gear	1
16	4734	Snap Ring	1	71	5L-67	Clutch Pressure Plate	1
17	L7-104	Sun Gear	1	73	71-97	Pressure Plate Spring	12
18	48538	5/16-18 X 3/4 Lock Bolt	6	74	71-140	Baffle	1
19	114805	5/16 Lockwasher	6	75	5C-A66A	Clutch Inner Plate Assembly	3
20	L9-A150	Pinion Cage Assembly	1	76	3-176	Clutch Plate	2
21	L9-99	Lube Oil Strainer	1	77	5C-176A	Clutch Pressure Plate	1
22	L4-146	Adapter Gasket, Rear	1	78	4765	Clutch Spring Snap Ring	1
23	4853D	7/16-14 X 1 Lock Bolt	6	79	3-37	Clutch Spring	1
24	114807	7/16 Lockwasher	6	80	5C-33	Clutch Spring Bearing Ring	1
25	L9-8A	Reduction Unit Adapter (Current)	1	81	5L-36	Clutch Ring	1
26	L9-8	Reduction Unit Adapter (Early)	1	82	71-45	Forward Clutch Piston	1
27	4818	Snap Ring	1	83	5M-122	Sealing Ring	1
28	103321	3/8 Lockwasher	6	84	71-70	Forward Clutch Cylinder	1
29	179640	3/8-18 X 1-1/8 Hex Head Bolt	6	85	71-158	Thrust Washer	1
30	B308AGS	Annular Bearing	1	86	B107A	Bearing	1
31	L4-146	Adapter Gasket, Front	1	87	4734	Snap Ring	1
32	179793	1/4-20 X 5/8 Hex Head Bolt	3	88	R6A-71/2	Snap Ring	1
33	103319	1/4 Lockwasher	3	89	4822	Ring Gear Snap Ring	1
34	71-4	Valve Cover	1	90	72-A66B	Reverse Clutch Plate Assembly	1
35	71-14	Valve Cover Gasket	1	92	71-71	Reverse Clutch Pressure Plate	1
36	4821	Snap Ring	1	93	71-35	Reverse Clutch Piston	1
37	71-246	Valve Spring Retainer	1	94	4805A	Sealing Ring	1
38	71-242	Valve Spring	1	95	4840D	Needle Bearing	1
39	71-243	Pressure Regulator Valve	1	96	4804G	Sealing Ring	1
40	71-244A	Forward & Reverse Gear Transmission Valve	1	97	71-144B	Case & Adapter Gasket	1
41	71-A244A	Valve & Spring Assembly (Items 35 thru 40)	1	98	444858	1/4 Pipe Plug	1
42	4804H	"O" Ring	1	99	71C-8	Forward & Reverse Adapter	1
43	10-00-191-002	3/8-18 Plastic Shipping Plug	1	100	4911	3/8-18 X 1-1/4 Cap Screw	4
44	A4740G	Breather Assembly	1	N.I.	71C-A60	Pump Assembly	1
45	444586	3/8-18 Pipe Plug	1	101	Not Serviced	Pump Drive Gear (Order Pump Assembly)	1
46	444687	1/8-27 Dryseal Plug	1	102	Not Serviced	Pump Driven Gear (Order Pump Assembly)	1
47	71-1A195	Dipstick Assembly	1	103	3-61	Pump Gasket	1
48	71-42	Poppet Spring	1	104	Not Serviced	Pump Housing (Order Pump Assembly)	1
49	453632	5/16 Steel Ball	1	105	71C-62A	Oil Seal Assembly	1
50	71-798	Forward & Reverse Shift Lever	1	106	179822	5/16-18 X 1-1/2 Hex Head Bolt	4
51	115729	5/16-24 Hex Nut	1				
52	106579	5/16 Lockwasher	1				
53	103340	Control Lever Washer	1				
54	10-00-191-002	3/8-18 Plastic Shipping Plug	1				
55	4885B	Bushing	1				
56	71C-24	Oil Return Tube	1				
57	71C-A98A	Oil Strainer Assembly	1				
58	71-1L	Transmission Case with Bushings	1				

N.I. - NOT ILLUSTRATED

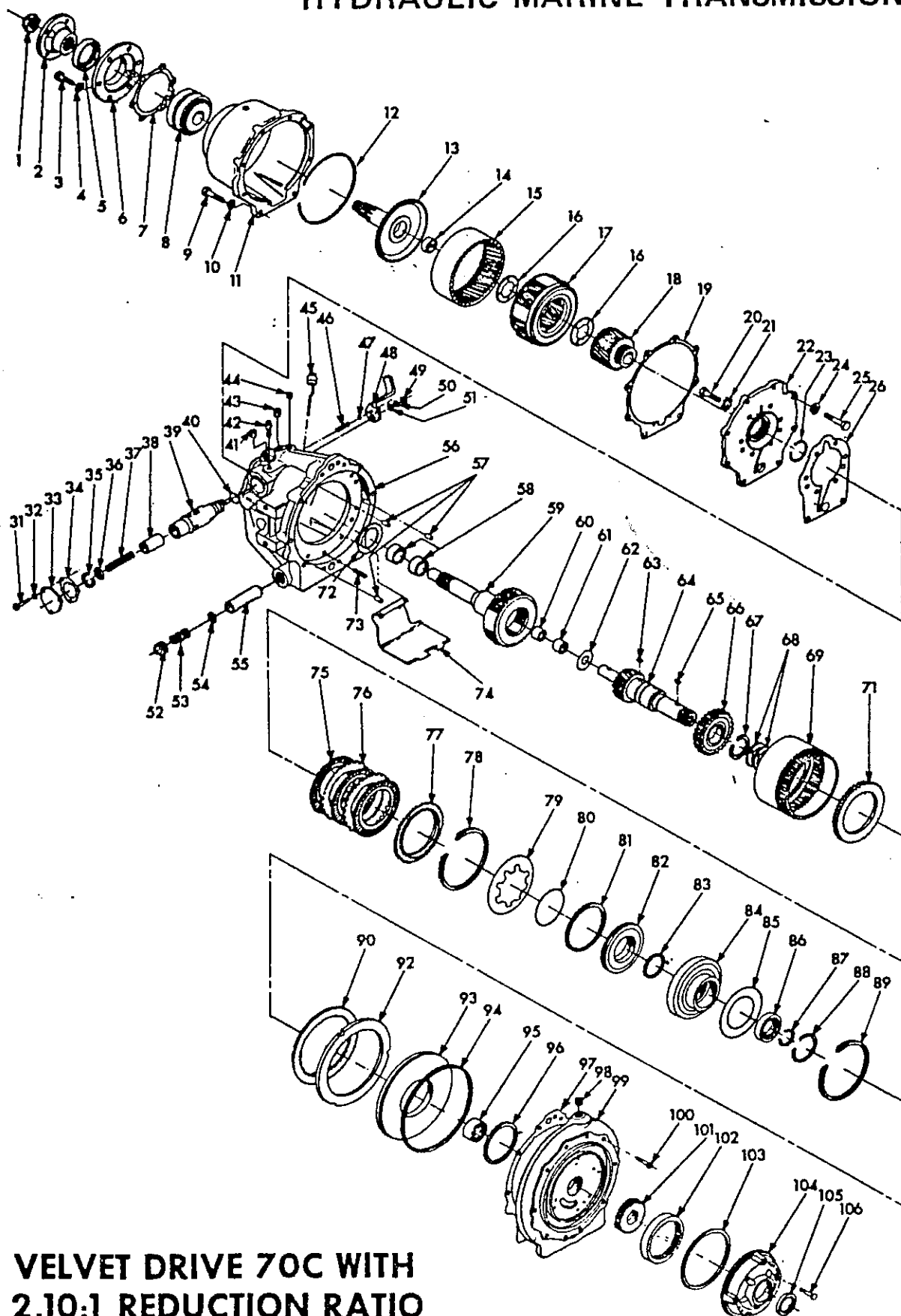
Warner Gear/Warner-Motive

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DIVISIONS OF BORG-WARNER CORPORATION



VELVET DRIVE® HYDRAULIC MARINE TRANSMISSION



**VELVET DRIVE 70C WITH
2.10:1 REDUCTION RATIO**

AS3-70C 2.10:1 PARTS LIST

INDEX NO.	W. G. PART NO.	DESCRIPTION	NO. REQ.	INDEX NO.	W. G. PART NO.	DESCRIPTION	N. I.
1	4775L	Main Shaft Nut	1	59	71-1A2B	Pinion Cage & Output Shaft Assembly	
2	4547BA	Coupling	1	60		Presized 71-9B Main	
3	179860	7/16-14 X 1-1/4 Hex Head Bolt	6		Kit A4857DD	Drive Gear Bushing	One of Each Bushing in Kit
4	103322	7/16 Lockwasher	6	61		Presized 71-9C Main	
5	71C-110	Oil Seal	1			Drive Gear Bushing	
6	L4-7	Bearing Retainer	1	62	71-17	Thrust Washer	
7	L4-147	Bearing Retainer Gasket	1	63	218211	Woodruff Key	
8	4820A	Bearing	1	64	71C-A16	Drive Gear & Plug Assembly (26 Spline)	
9	179864	7/16-14 X 1-3/4 Hex Head Bolt	2	65	4873	Woodruff Key	
10	103322	7/16 Lockwasher	2	66	71-40	Forward Clutch Hub	
11	L5-1B	Reduction Housing (Current)	1	67	4495	Snap Ring	
	L5-1	Reduction Housing (Early)	1	68	4806J	Sealing Ring	
12	4756D	Ring Gear Snap Ring	1	69	70-6	Ring Gear	
13	L5-A2	Reduction Unit Main Shaft & Bushing	1	71	5L-67	Clutch Pressure Plate	
14	Kit A4857DD	Bushing (71-9B Presized for Service)	1	72	71-159	Thrust Washer	
15	L3-8	Ring Gear	1	73	71-87	Pressure Plate Spring	
16	L3-24	Thrust Washer	2	74	71-140	Baffle	
17	L5-1A150	Planetary Gears & Cage Ass'y (For CR Units)	1	75	5C-A66A	Clutch Inner Plate Assembly	
	L5A-1A150	Planetary Gears & Cage Ass'y (For C Units)	1	76	3-176	Clutch Plate	
18	L5-4	Sun Gear	1	77	5C-175A	Clutch Pressure Plate	
19	L4-146	Adapter Gasket, Rear	1	78	4755	Clutch Spring Snap Ring	
20	4853D	Lock Bolt	6	79	3-37	Clutch Spring	
21	114607	7/16 Lockwasher	6	80	5C-33	Clutch Spring Bearing Ring	
22	L5-8A	Reduction Unit Adapter (Current)	1	81	5L-36	Clutch Ring	
	L5-8	Reduction Unit Adapter (Early, without track)	1	82	71-45	Forward Clutch Piston	
23	4768A	Snap Ring	1	83	5M-122	Sealing Ring	
24	103321	3/8 Lockwasher	6	84	71-70	Forward Clutch Cylinder	
25	179840	3/8-16 X 1-1/8 Hex Head Bolt	6	85	71-15B	Thrust Washer	
26	L4-145	Reduction Unit Adapter Gasket, Front	1	86	8107A	Bearing	
31	179793	1/4-20 X 5/8 Hex Head Bolt	3	87	4734	Snap Ring	
32	103319	1/4 Lockwasher	3	88	86A-71/2	Snap Ring	
33	71-4	Valve Cover	1	89	4822	Ring Gear Snap Ring	
34	71-14	Valve Cover Gasket	1	90	72-A66B	Reverse Clutch Plate Assembly	
35	4821	Snap Ring	1	92	71-71	Reverse Clutch Pressure Plate	
36	71-246	Valve Spring Retainer	1	93	71-35	Reverse Clutch Piston	
37	71-242	Valve Spring	1	94	4805A	Sealing Ring	
38	71-243	Pressure Regulator Valve	1	95	4840D	Needle Bearing	
39	71-244A	Forward & Reverse Gear Transmission Valve	1	96	4804G	Sealing Ring	
N.I.	71-A244A	Valve & Spring Assembly (Items 35 thru 39)	1	97	71-144B	Case & Adapter Gasket	
40	4804H	"O" Ring	1	98	444858	1/4 Pipe Plug	
41	10-00-191-002	3/8-18 Plastic Shipping Plug	1	99	71C-8	Forward & Reverse Adapter	
42	A4740G	Breather Assembly	1	100	4911	3/8-16 X 1-1/4 Cap Screw	
43	444866	3/8-18 Pipe Plug	1	N.I.	71C-A60	Pump Assembly	
44	444687	1/8-27 Dryseal Plug	1	101	Not Serviced	Pump Drive Gear (Order Pump Assembly)	
45	71-1A195	Dipstick Assembly	1	102	Not Serviced	Pump Driven Gear (Order Pump Assembly)	
46	71-42	Poppet Spring	1	103	3-61	Pump Gasket	
47	453632	5/16 Steel Ball	1	104	Not Serviced	Pump Housing (Order Pump Assembly)	
48	71-79B	Forward & Reverse Shift Lever	1	105	71C-62A	Oil Seal Assembly	
49	115729	5/16-24 Hex Nut	1	106	179822	5/16-18 X 1-1/2 Hex Head Bolt	
50	108579	5/16 Lockwasher	1				
51	103340	Control Lever Washer	1				
52	444582	3/4 Pipe Plug	1				
53	5L-222	Spring	1				
54	35-143	Flat Washer	1				
55	72C-98	Oil Inlet Shield	1				
56	71-A1L	Transmission Case with Bushings	1				
57	71-87A	Dowel Pin	3				
58	Kit A4857VV	Presized Case Bushing (Two in Kit)	1				

N.I. - NOT ILLUSTRATED

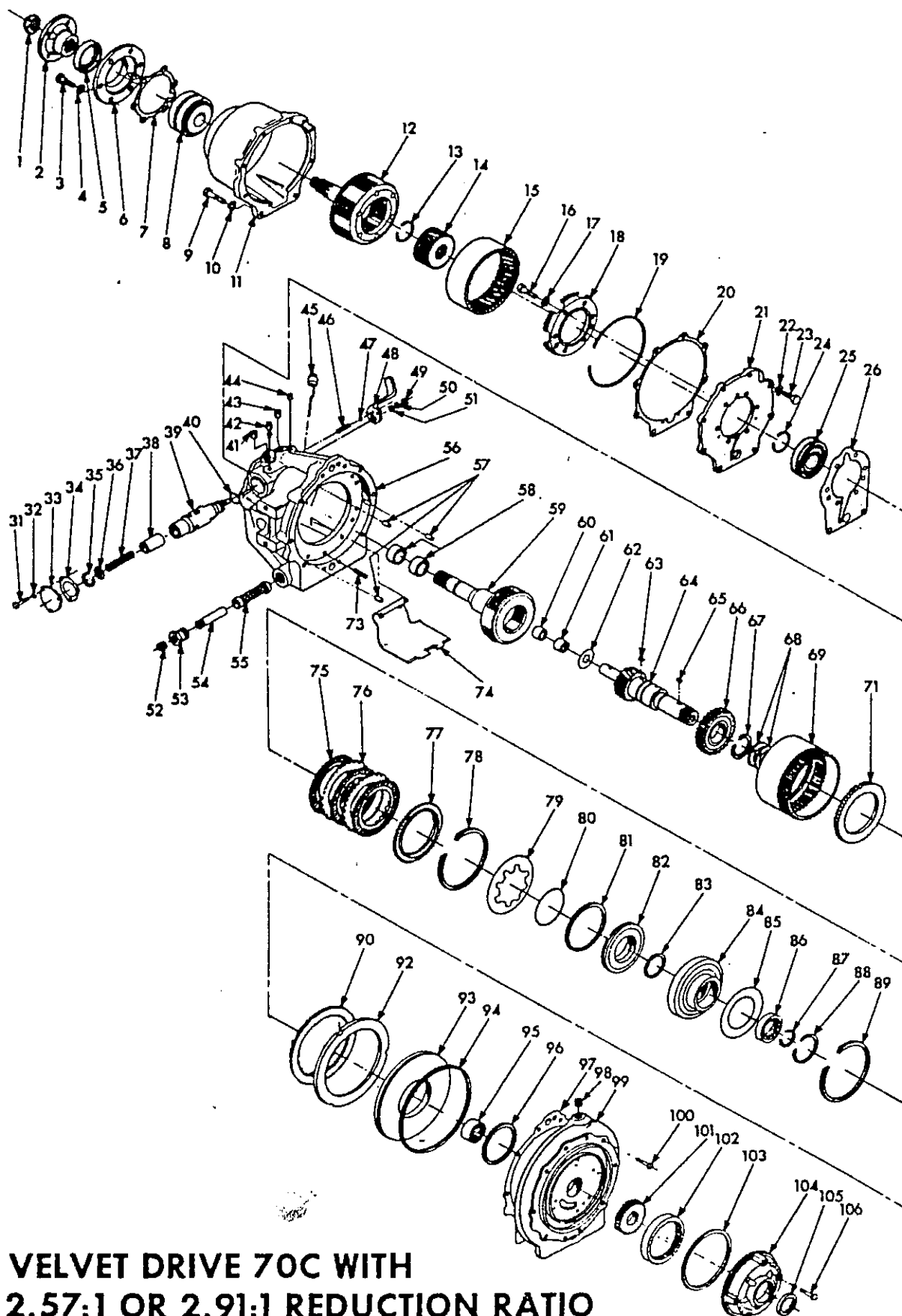
Warner Gear/Warner-Motive

General Offices, 1106 East Seymour Street, Muncie, Indiana 47302 Telephone: 317/284-8411

DIVISIONS OF BORG-WARNER CORPORATION



VELVET DRIVE® HYDRAULIC MARINE TRANSMISSION



**VELVET DRIVE 70C WITH
2.57:1 OR 2.91:1 REDUCTION RATIO**

FORM 1084 2/71

PRINTED IN U.S.A.

VELVET DRIVE 70C WITH 2.57:1 OR 2.91:1 PARTS LIST

INDEX NO.	W. G. PART NO.	DESCRIPTION	NO. REQ.	INDEX NO.	W. G. PART NO.	DESCRIPTION	NO. RI
1	4775G	Main Shaft Nut 1000-149-012	1	55	71C-A88A	Oil Strainer Assembly	
2	4812	Coupling	1	56	71-A1L	Transmission Case with Bushings	1
3	179880	7/16-14 X 1-1/4 Hex Head Bolt	8	57	71-87A	Dowel Pin	3
4	103322	7/16 Lockwasher	8	58	Kh A4867VV	Pressized Case Bushing (Two in Kit)	
5	71C-110	Oil Seal	1	59	71-1A2C	Pinion Cage & Output Shaft Assembly	
6	L4-7	Bearing Retainer	1	60		Pressized Bushing	
7	L4-147	Bearing Retainer Gasket	1	61	Kh A4867DD	Pressized Bushing	One of Each in Kit
8	4820	Bearing	1	62	71-17	Thrust Washer	
9	179884	7/16-14 X 1-3/4 Hex Head Bolt	2	63	218211	Woodruff Key	
10	103322	7/16 Lockwasher	2	64	71C-A16	Drive Gear & Plug Assembly (26 Spline)	1
11	L7-1A	Reduction Housing (Current)	1	65	4873	Woodruff Key	1
	L7-1	Reduction Housing (Early)	1	66	71-40	Forward Clutch Hub	
12	L6-A2D	Pinion Cage & Driven Shaft Ass'y (2.57:1 Only)	1	67	4495	Snap Ring	
	L7-A2D	Pinion Cage & Driven Shaft Ass'y (2.91:1 Only)	1	68	4806J	Sealing Ring	2
13	4734	Snap Ring	1	69	70-6	Ring Gear	1
14	L6-104	Sun Gear (2.57:1 Only)	1	71	5L-87	Clutch Pressure Plate	
	L7-104	Sun Gear (2.91:1 Only)	1	73	71-97	Pressure Plate Spring	1
15	L6-6	Ring Gear (2.57:1 Only)	1	74	71-140	Baffle	1
	L3-6	Ring Gear (2.91:1 Only)	1	76	5C-A66A	Clutch Inner Plate Assembly	3
16	4853E	Lock Bolt	8	76	3-176	Clutch Plate	
17	114807	7/16 Lockwasher	6	77	5C-175A	Clutch Pressure Plate	
18	L6-31	Stationary Gear Plate (2.57:1 Only)	1	78	4755	Clutch Spring Snap Ring	1
	L7-31	Stationary Gear Plate (2.91:1 Only)	1	79	3-37	Clutch Spring	1
19	4756E	Snap Ring (2.57:1 Only)	1	80	5C-33	Clutch Spring Bearing Ring	
	4756D	Snap Ring (2.91:1 Only)	1	81	5L-36	Clutch Ring	
20	L4-146	Adapter Gasket, Rear	1	82	71-45	Forward Clutch Pinion	1
21	L7-8A	Reduction Unit Adapter (Current)	1	83	5M-122	Sealing Ring	1
	L7-8	Reduction Unit Adapter (Early)	1	84	71-70	Forward Clutch Cylinder	
22	103321	3/8 Lockwasher	8	85	71-158	Thrust Washer	
23	179840	3/8-16 X 1-1/8 Hex Head Bolt	8	86	8107A	Bearing	1
24	4816	Snap Ring	1	87	4734	Snap Ring	1
25	8308AGS	Bearing	1	88	R6A-71/2	Snap Ring	
26	L4-146	Adapter Gasket, Front	1	89	4822	Ring Gear Snap Ring	
31	179793	1/4-20 X 5/8 Hex Head Bolt	3	90	72-A668	Reverse Clutch Plate Assembly	1
32	103319	1/4 Lockwasher	3	92	71-71	Reverse Clutch Pressure Plate	1
33	71-4	Valve Cover	1	93	71-35	Reverse Clutch Piston	
34	71-14	Valve Cover Gasket	1	94	4805A	Sealing Ring	
35	4821	Snap Ring	1	95	4840D	Needle Bearing	1
36	71-246	Valve Spring Retainer	1	96	4804G	Sealing Ring	1
37	71-242	Valve Spring	1	97	71-144B	Case & Adapter Gasket	
38	71-243	Pressure Regulator Valve	1	98	444858	1/4 Pipe Plug	
39	71-244A	Forward & Reverse Gear Transmission Valve	1	99	71C-8	Forward & Reverse Adapter	1
N.I.	71-A244A	Valve & Spring Assembly (Items 35 thru 39)	1	100	4911	3/8-16 X 1-1/4 Cap Screw	4
40	4804H	"O" Ring	1	N.I.	71C-A60	Pump Assembly	
41	10-00-191-002	3/8-18 Plastic Shipping Plug	1	101	Not Serviced	Pump Drive Gear (Order Pump Assembly)	
42	A4740G	Breather Assembly	1	102	Not Serviced	Pump Driven Gear (Order Pump Assembly)	1
43	444868	3/8-18 Pipe Plug	1	103	3-61	Pump Gasket	
44	444887	1/8-27 Dryseal Plug	1	104	Not Serviced	Pump Housing (Order Pump Assembly)	
45	71-1A195	Dipstick Assembly	1	105	71C-82A	Oil Seal Assembly	
46	71-42	Poppet Spring	1	106	179822	5/16-18 X 1-1/2 Hex Head Bolt	4
47	453632	5/16 Steel Ball	1				
48	71-798	Forward & Reverse Shift Lever	1				
49	115729	5/16-24 Hex Nut	1				
50	108579	5/16 Lockwasher	1				
51	103340	Control Lever Washer	1				
52	10-00-191-002	3/8-18 Plastic Shipping Plug	1				
53	48858	Bushing	1				
54	71C-84	Oil Return Tube	1				

N.I. - NOT ILLUSTRATED

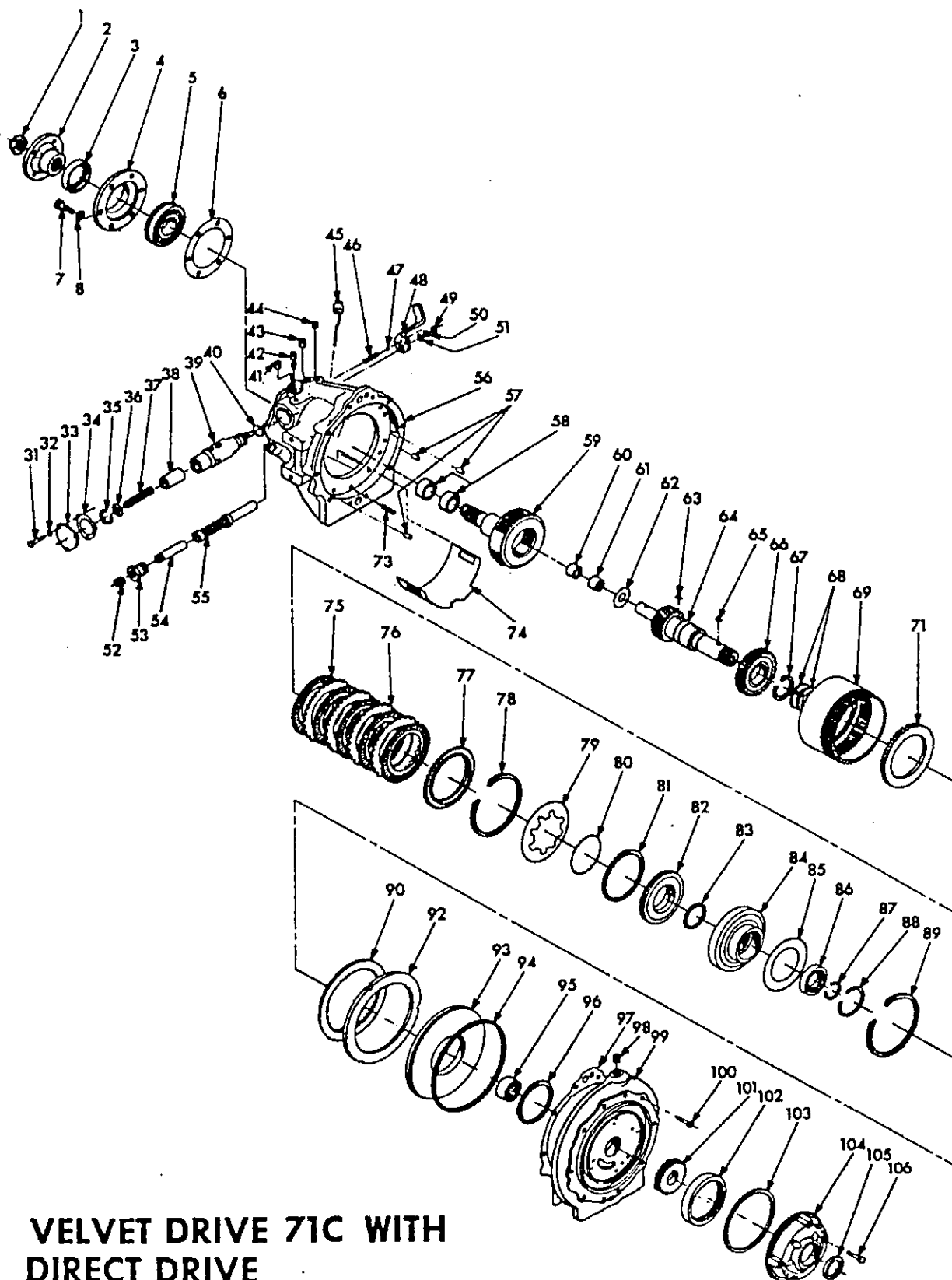
Warner Gear/Warner-Motive

General Offices, 1106 East Seymour Street, Muncie, Indiana 47302 Telephone: 317/284-8411

DIVISIONS OF BORG-WARNER CORPORATION



VELVET DRIVE® HYDRAULIC MARINE TRANSMISSION



VELVET DRIVE 71C WITH DIRECT DRIVE

AS1-71C DIRECT DRIVE PARTS LIST

INDEX NO.	W. G. PART NO.	DESCRIPTION	NO. REQ.	INDEX NO.	W. G. PART NO.	DESCRIPTION	NO. REQ.
1	4745L	Main Shaft Nut	1	81	5L-36	Clutch Ring	1
2	46478A	Coupling	1	82	71-45	Forward Clutch Piston	1
3	71C-110	Oil Seal	1	83	5M-122	Sealing Ring ("O" Ring)	1
4	71-7	Bearing Retainer	1	84	71-70	Forward Clutch Cylinder	1
5	B308AGS	Annular Bearing	1	85	71-158	Thrust Washer	1
6	71-147	Bearing Retainer Gasket	1	86	8107A	Bearing	1
7	179859	7/16-14 X 1-1/8 Hex Head Bolt	6	87	4734	Snap Ring	1
8	103322	7/16 Lockwasher	6	88	R6A-7-1/2	Snap Ring	1
11	179793	1/4-20 X 5/8 Hex Head Nut	3	89	4822	Ring Gear Snap Ring	1
12	103319	1/4 Lockwasher	3	90	72-A668	Reverse Clutch Plate Assembly	1
33	71-4	Valve Cover	1	92	71-71	Reverse Clutch Pressure Plate	1
14	71-14	Valve Cover Gasket	1	93	71-36	Reverse Clutch Piston	1
1	71-A244A	Valve & Spring Assembly (Items 36,38,37,38, & 39)	1	94	4805A	Sealing Ring	1
15	4821	Snap Ring	1	95	48400	Needle Bearing	1
36	71-246	Valve Spring Retainer	1	96	4804G	Sealing Ring	1
17	71-242	Valve Spring	1	97	71-1448	Case & Adapter Gasket	1
8	71-243	Pressure Regulator Valve	1	98	444858	1/4 Pipe Plug	1
19	71-244A	Forward & Reverse Gear Transmission Valve	1	99	71C-8	Forward & Reverse Adapter	1
40	4804H	"O" Ring	1	100	4811	3/8-16 X 1-1/4 Cap Screw	1
11	10-00-191-002	3/8-18 Plastic Plug	1	N.I.	71C-A60	Pump Assembly (Includes 101,102,104, & 106)	1
2	A4740G	Breather Assembly	1	101	Not Serviced	Pump Drive Gear (Order Assembly)	1
3	444866	3/8-18 Pipe Plug	2	102	Not Serviced	Pump Driven Gear (Order Assembly)	1
44	444687	1/8-27 Pipe Plug	1	103	3-61	Pump Gasket	1
15	71-1A195	Dipstick Assembly	1	104	Not Serviced	Pump Housing (Order Assembly)	1
6	71-42	Poppet Spring	1	106	71C-62A	Oil Seal Assembly	1
17	453632	5/16 Steel Ball	1	106	179822	5/16-18 X 1-1/2 Hex Head Bolt	1
48	71-798	Forward & Reverse Shift Lever	1				
19	115729	5/16-24 Hex Nut	1				
3	108579	5/16 Lockwasher	1				
	103340	Control Lever Washer	1				
	10-00-191-002	3/8-18 Plastic Plug	1				
3	4885B	Bushing	1				
4	71C-84	Oil Return Tube	1				
15	71C-A98	Oil Strainer Assembly	1				
56	71B-A1A	Transmission Case	1				
7	71-87A	Dowel Pin	3				
8	Kit A4857VV	Case Bushings (Two Presized Bushings in Kit)	1				
19	71-1A2	Pinion Cage & Output Shaft Assembly	1				
60		Main Drive Gear Bushing (71-98 Presized)	1				
	Kit A4867DD	ONE OF EACH IN KIT	1				
1		Main Drive Gear Bushing (71-9C Presized)	1				
12	71-17	Thrust Washer	1				
63	218211	Woodruff Key	1				
14	71C-A16	Drive Gear & Plug Assembly	1				
5	4873	Woodruff Key	1				
16	71-40	Forward Clutch Hub	1				
67	4485	Snap Ring	1				
8	4806J	Sealing Ring	2				
9	71-8	Ring Gear	1				
1	5L-67	Clutch Pressure Plate	1				
73	71-97	Pressure Plate Spring	12				
14	71B-140	Baffle	1				
5	5C-A68A	Clutch Inner Plate Assembly	5				
13	3-176	Clutch Plate (Steel)	4				
77	5C-175A	Clutch Pressure Plate	1				
9	4755	Clutch Spring Snap Ring	1				
3	3-37	Clutch Spring	1				
3	5C-33	Clutch Spring Bearing Ring	1				

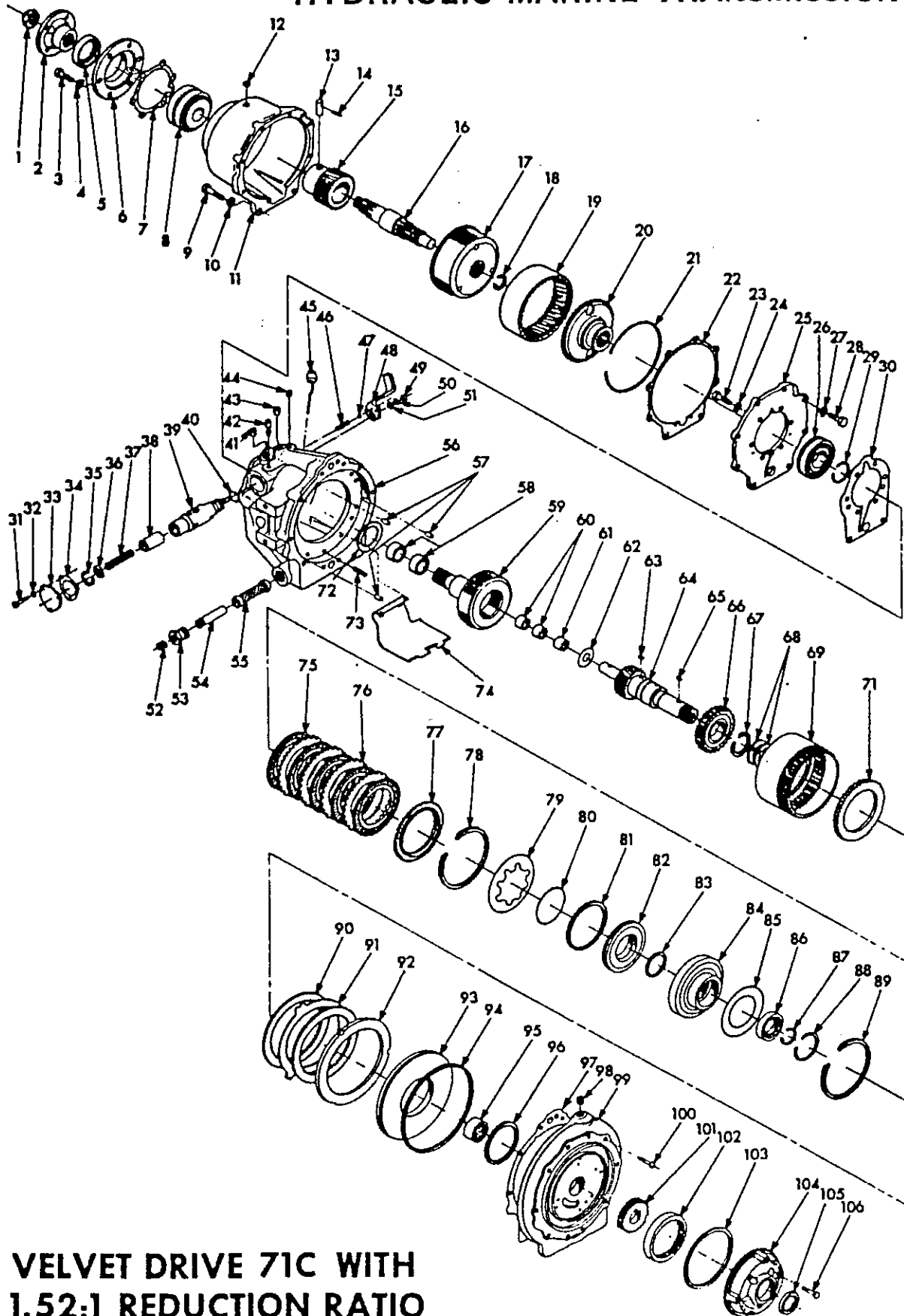
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Warner Gear/Warner-Motive

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VELVET DRIVE® HYDRAULIC MARINE TRANSMISSION



VELVET DRIVE 71C WITH 1.52:1 REDUCTION RATIO

FORM 1076 2/71

PRINTED IN U.S.A.

AS2-71C 1.52:1 PARTS LIST

INDEX NO.	W. G. PART NO.	DESCRIPTION	NO. REQ.	INDEX NO.	W. G. PART NO.	DESCRIPTION	NO. REQ.
1	4775L	Main Shaft Nut	1	56	71-A1K	Transmission Case with Bushings	1
2	45478A	Coupling	1	57	R6-177	Dowel Pin	3
3	179860	7/16-14 X 1-1/4 Hex Head Bolt	6	58	Kit A4867VV	Presized Case Bushing (Two in Kit)	1
4	103322	7/16 Lockwasher	6	59	71-1A2A	Pinion Cage & Output Shaft Assembly	1
5	71C-110	Oil Seal	1	60		Presized Bushing	2
6	L4-7	Bearing Retainer	1	61	Kit A4867DD	Presized Bushing	
7	L4-147	Bearing Retainer Gasket	1	62	71-17	Thrust Washer	1
8	4820A	Bearing	1	63	218211	Woodruff Key	1
9	179864	7/16-14 X 1-3/4 Hex Head Bolt	2	64	71C-A16	Drive Gear & Plug Assembly (26 Spline)	1
10	103322	7/16 Lockwasher	2	65	4873	Woodruff Key	1
11	L4-1A	Reduction Housing (Current)	1	66	71-40	Forward Clutch Hub	1
	L4-1	Reduction Housing (Early)	1	67	4495	Snap Ring	1
12	103891	Expansion Plug	1	68	4806J	Sealing Ring	2
13	L4-151	Pinion Cage Drive Pin	1	69	71-6	Ring Gear	1
14	4808	Spring Pin	1	71	5L-67	Clutch Pressure Plate	1
15	L4-4	Sun Gear	1	72	71-159	Thrust Washer	1
16	L4-2	Main Shaft	1	73	71-97	Pressure Plate Spring	12
17	L4-A150	Pinion Cage Assembly	1	74	71-140	Baffle	1
18	4734	Snap Ring	1	75	5C-A66A	Clutch Inner Plate Assembly	5
19	L3-6	Ring Gear	1	76	3-176	Clutch Plate	4
20	L4-16	Input Gear	1	77	5C-175A	Clutch Pressure Plate	1
21	47580	Snap Ring	1	78	4755	Clutch Spring Snap Ring	1
22	L4-146	Adapter Gasket, Rear	1	79	3-37	Clutch Spring	1
23	48530	7/16-14 X 1 Lock Bolt	6	80	5C-33	Clutch Spring Bearing Ring	1
24	114607	7/16 Lockwasher	6	81	5L-36	Clutch Ring	1
25	L4-38	Reduction Unit Adapter (Current)	1	82	71-45	Forward Clutch Piston	1
	L4-8	Reduction Unit Adapter (Early)	1	83	5M-122	Sealing Ring	1
26	8111AG	Bearing	1	84	71-70	Forward Clutch Cylinder	1
27	103321	3/8 Lockwasher	6	85	71-15B	Thrust Washer	1
28	179840	3/8-16 X 1-1/8 Hex Head Bolt	6	86	8107A	Bearing	1
29	4766	Snap Ring	1	87	4734	Snap Ring	1
30	L4-145	Adapter Gasket, Front	1	88	R6A-71/2	Snap Ring	1
31	179793	1/4-20 X 5/8 Hex Head Bolt	3	89	4822	Ring Gear Snap Ring	1
32	103319	1/4 Lockwasher	3	90	72-A66B	Reverse Clutch Plate Assembly	2
33	71-4	Valve Cover	1	91	72-176	Outer Clutch Plate	1
34	71-14	Valve Cover Gasket	1	92	71-71	Reverse Clutch Pressure Plate	1
35	4821	Snap Ring	1	93	71-35	Reverse Clutch Piston	1
36	71-246	Valve Spring Retainer	1	94	4805A	Sealing Ring	1
37	71-242	Valve Spring	1	95	4840D	Needle Bearing	1
38	71-243	Pressure Regulator Valve	1	96	4804G	Sealing Ring	1
39	71-244A	Forward & Reverse Gear Transmission Valve	1	97	71-144B	Case & Adapter Gasket	1
I.I.	71-A244A	Valve & Spring Assembly (Items 35 thru 39)	1	98	444858	1/4 Pipe Plug	1
40	4804H	"O" Ring	1	99	71C-8	Forward & Reverse Adapter	1
41	10-00-191-002	3/8-18 Plastic Shipping Plug	1	100	4911	3/8-16 X 1-1/4 Cap Screw	4
42	A4740G	Breather Assembly	1	N.I.	71C-A60	Pump Assembly	1
43	444866	3/8-18 Pipe Plug	1	101	Not Serviced	Pump Drive Gear (Order Pump Assembly)	1
44	444687	1/8-27 Dryseal Plug	1	102	Not Serviced	Pump Driven Gear (Order Pump Assembly)	1
45	71-1A195	Dipstick Assembly	1	103	3-61	Pump Gasket	1
46	71-42	Poppet Spring	1	104	Not Serviced	Pump Housing (Order Pump Assembly)	1
47	453632	5/16 Steel Ball	1	105	71C-62A	Oil Seal Assembly	1
48	71-798	Forward & Reverse Shift Lever	1	106	179822	5/16-18 X 1-1/2 Hex Head Bolt	4
49	115729	5/16-24 Hex Nut	1				
50	108579	5/16 Lockwasher	1				
51	103340	Control Lever Washer	1				
52	10-00-191-002	3/8-18 Plastic Shipping Plug	1				
53	4885B	Bushing	1				
54	71C-84	Oil Return Tube	1				
55	71C-A98A	Oil Strainer Assembly	1				

N.I. - NOT ILLUSTRATED

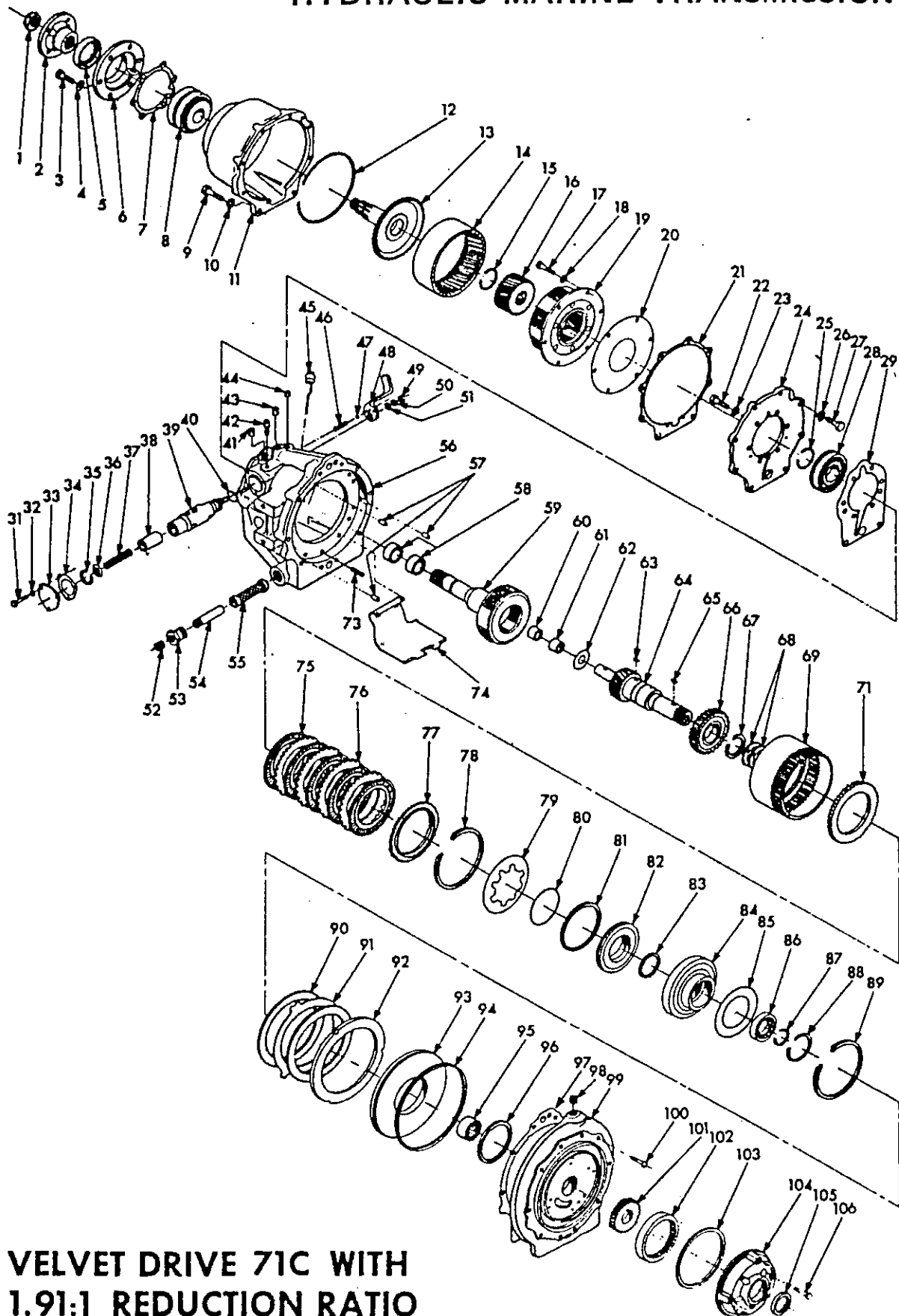
Warner Gear/Warner-Motive

General Offices, 1106 East Seymour Street, Muncie, Indiana 47302 Telephone: 317/284-8411

DIVISIONS OF BORG-WARNER CORPORATION



VELVET DRIVE® HYDRAULIC MARINE TRANSMISSION



**VELVET DRIVE 71C WITH
1.91:1 REDUCTION RATIO**

AS7-71C 1.91:1 PARTS LIST

INDEX NO.	W. G. PART NO.	DESCRIPTION	NO. REQ.	INDEX NO.	W. G. PART NO.	DESCRIPTION	NO. REQ.
1	4775L	Main Shaft Nut	1	57	R6-177	Dowel Pin	3
2	45478A	Coupling	1	58	Kit A4867VV	Presized Case Bushing (Two In Kit)	1
3	179880	7/16-14 X 1-1/4 Hex Head Bolt	6	59	71-1A2C	Pinion Cage & Output Shaft Assembly	1
4	103322	7/16 Lockwasher	6	60		Presized 71-9B Main	One of Each Bushing In Kit
5	71C-110	Oil Seal	1		Kit A4867DD	Drive Gear Bushing	
6	L4-7	Bearing Retainer	1	61		Presized 71-9C Main	
7	L4-147	Bearing Retainer Gasket	1			Drive Gear Bushing	1
8	4820A	Bearing	1	62	71-17	Thrust Washer	1
9	179864	7/16-14 X 1-3/4 Hex Head Bolt	2	63	218211	Woodruff Key	1
10	103322	7/16 Lockwasher	2	64	71C-A16	Drive Gear & Plug Assembly (26 Splines)	1
11	L5-1A	Reduction Housing (Current)	1	65	4873	Woodruff Key	1
	L5-1	Reduction Housing (Early)	1	66	71-40	Forward Clutch Hub	1
12	4756D	Snap Ring	1	67	4485	Snap Ring	1
13	L9-2	Reduction Unit Main Shaft	1	68	4806J	Sealing Ring	2
14	L3-6	Ring Gear	1	69	71-6	Ring Gear	1
15	4734	Snap Ring	1	71	5L-67	Clutch Pressure Plate	1
16	L7-104	Sun Gear	1	73	71-97	Pressure Plate Spring	12
17	4853B	5/16-18 X 3/4 Lock Bolt	6	74	71-140	Baffle	1
18	114805	5/16 Lockwasher	6	75	5C-A66A	Clutch Inner Plate Assembly	6
19	L9-A150	Pinion Cage Assembly	1	76	3-176	Clutch Plate	4
20	L9-69	Lube Oil Strainer	1	77	5C-175A	Clutch Pressure Plate	1
21	L4-146	Adapter Gasket, Rear	1	78	4755	Clutch Spring Snap Ring	1
22	4853D	7/16-14 X 1 Lock Bolt	6	79	3-37	Clutch Spring	1
23	114807	7/16 Lockwasher	6	80	5C-33	Clutch Spring Bearing Ring	1
24	L9-8A	Reduction Unit Adapter (Current)	1	81	5L-36	Clutch Ring	1
	L9-8	Reduction Unit Adapter (Early)	1	82	71-45	Forward Clutch Piston	1
25	4816	Snap Ring	1	83	5M-122	Sealing Ring	1
26	103321	3/8 Lockwasher	6	84	71-70	Forward Clutch Cylinder	1
27	179840	3/8-18 X 1-1/8 Hex Head Bolt	6	85	71-158	Thrust Washer	1
28	B308AGS	Annular Bearing	1	86	8107A	Bearing	1
29	L4-146	Adapter Gasket, Front	1	87	4734	Snap Ring	1
31	179793	1/4-20 X 5/8 Hex Head Bolt	3	88	R6A-71/2	Snap Ring	1
32	103319	1/4 Lockwasher	3	89	4822	Ring Gear Snap Ring	1
33	71-4	Valve Cover	1	90	72-A66B	Reverse Clutch Plate Assembly	2
34	71-14	Valve Cover Gasket	1	91	72-176	Outer Clutch Plate	1
35	4821	Snap Ring	1	92	71-71	Reverse Clutch Pressure Plate	1
36	71-246	Valve Spring Retainer	1	93	71-35	Reverse Clutch Piston	1
37	71-242	Valve Spring	1	94	4805A	Sealing Ring	1
38	71-243	Pressure Regulator Valve	1	95	4840D	Needle Bearing	1
39	71-244A	Forward & Reverse Gear Transmission Valve	1	96	4804G	Sealing Ring	1
41	71-A244A	Valve & Spring Assembly (Items 36 thru 40)	1	97	71-144B	Case & Adapter Gasket	1
40	4804H	"O" Ring	1	98	444858	1/4 Pipe Plug	1
41	10-00-191-002	3/8-18 Plastic Shipping Plug	1	99	71C-8	Forward & Reverse Adapter	1
42	A4740G	Breather Assembly	1	100	4911	3/8-18 X 1-1/4 Cap Screw	4
43	444586	3/8-18 Pipe Plug	1	N.I.	71C-A60	Pump Assembly	1
44	444687	1/8-27 Dryseal Plug	1	101	Not Serviced	Pump Drive Gear (Order Pump Assembly)	1
45	71-1A195	Dipstick Assembly	1	102	Not Serviced	Pump Driven Gear (Order Pump Assembly)	1
46	71-42	Poppet Spring	1	103	3-61	Pump Gasket	1
47	453632	5/16 Steel Ball	1	104	Not Serviced	Pump Housing (Order Pump Assembly)	1
48	71-798	Forward & Reverse Shift Lever	1	105	71C-62A	Oil Seal Assembly	1
49	115729	5/16-24 Hex Nut	1	106	179822	5/16-18 X 1-1/2 Hex Head Bolt	4
50	108579	5/16 Lockwasher	1				
51	103340	Control Lever Washer	1				
52	10-00-191-002	3/8-18 Plastic Shipping Plug	1				
53	4885B	Bushing	1				
54	71C-84	Oil Return Tube	1				
55	71C-A98A	Oil Strainer Assembly	1				
56	71-1K	Transmission Case with Bushings	1				

N.I. - NOT ILLUSTRATED

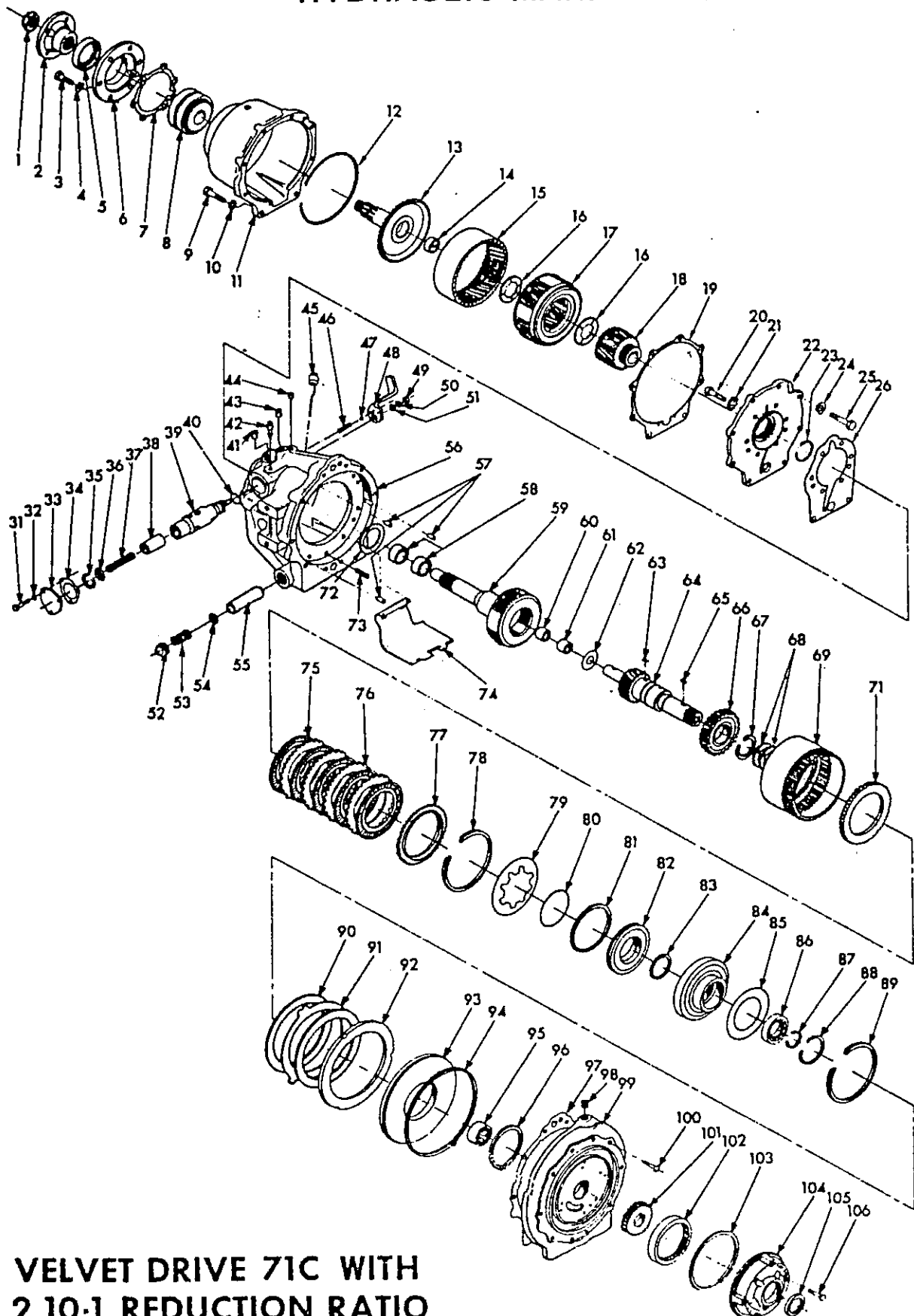
Warner Gear/Warner-Motive

General Offices, 1106 East Seymour Street, Muncie, Indiana 47302 Telephone: 317/284-8411

DIVISIONS OF BORG-WARNER CORPORATION



VELVET DRIVE® HYDRAULIC MARINE TRANSMISSION



**VELVET DRIVE 71C WITH
2.10:1 REDUCTION RATIO**

AS3-71C 2.10:1 PARTS LIST

INDEX NO.	W. G. PART NO.	DESCRIPTION	NO. REQ.	INDEX NO.	W. G. PART NO.	DESCRIPTION	NO. REQ.
1	4775L	Main Shaft Nut	1	59	71-1A2B	Pinion Cage & Output Shaft Assembly	1
2	4547BA	Coupling	1	60		Presized 71-9B Main	
3	179880	7/16-14 X 1-1/4 Hex Head Bolt	6		Kit A4867DD	Drive Gear Bushing	1
4	103322	7/16 Lockwasher	6	61		Presized 71-9C Main	
5	71C-110	Oil Seal	1			Drive Gear Bushing	
6	L4-7	Bearing Retainer	1	62	71-17	Thrust Washer	1
7	L4-147	Bearing Retainer Gasket	1	63	218211	Woodruff Key	1
8	4920A	Bearing	1	64	71C-A16	Drive Gear & Plug Assembly (26 Splines)	1
9	179864	7/16-14 X 1-3/4 Hex Head Bolt	2	65	4873	Woodruff Key	1
10	103322	7/16 Lockwasher	2	66	71-40	Forward Clutch Hub	1
11	L5-1B	Reduction Housing (Current)	1	67	4495	Snap Ring	1
	L5-1	Reduction Housing (Early)	1	68	4806J	Sealing Ring	2
12	4756D	Ring Gear Snap Ring	1	69	71-6	Ring Gear	1
13	L5-A2	Reduction Unit Main Shaft & Bushing	1	71	5L-67	Clutch Pressure Plate	1
14	Kit A4867DD	Bushing (71-9B Presized for Service)	1	72	71-159	Thrust Washer	1
15	L3-8	Ring Gear	1	73	71-97	Pressure Plate Spring	12
16	L3-24	Thrust Washer	2	74	71-140	Baffle	1
17	L5-1A150	Planetary Gears & Cage Assembly (For CR Units)	1	75	5C-A66A	Clutch Inner Plate Assembly	6
	L5A-1A150	Planetary Gears & Cage Assembly (For C Units)	1	76	3-176	Clutch Plate	4
18	L5-4	Sun Gear	1	77	5C-175A	Clutch Pressure Plate	1
19	L4-146	Adapter Gasket, Rear	1	78	4755	Clutch Spring Snap Ring	1
20	4853D	Lock Bolt	6	79	3-37	Clutch Spring	1
21	114807	7/16 Lockwasher	6	80	5C-33	Clutch Spring Bearing Ring	1
22	L5-8A	Reduction Unit Adapter (Current)	1	81	5L-36	Clutch Ring	1
	L5-8	Reduction Unit Adapter (Early, without track)	1	82	71-46	Forward Clutch Piston	1
23	4768A	Snap Ring	1	83	5M-122	Sealing Ring	1
24	103321	3/8 Lockwasher	6	84	71-70	Forward Clutch Cylinder	1
25	179840	3/8-16 X 1-1/8 Hex Head Bolt	6	85	71-158	Thrust Washer	1
26	L4-146	Reduction Unit Adapter Gasket, Front	1	86	8107A	Bearing	1
31	179793	1/4-20 X 5/8 Hex Head Bolt	3	87	4734	Snap Ring	1
32	103319	1/4 Lockwasher	3	88	86A-71/2	Snap Ring	1
33	71-4	Valve Cover	1	89	4822	Ring Gear Snap Ring	1
34	71-14	Valve Cover Gasket	1	90	72-A66B	Reverse Clutch Plate Assembly	2
35	4821	Snap Ring	1	91	72-176	Outer Clutch Plate	1
36	71-246	Valve Spring Retainer	1	92	71-71	Reverse Clutch Pressure Plate	1
37	71-242	Valve Spring	1	93	71-36	Reverse Clutch Piston	1
38	71-243	Pressure Regulator Valve	1	94	4805A	Sealing Ring	1
39	71-244A	Forward & Reverse Gear Transmission Valve	1	95	48400	Needle Bearing	1
N.I.	71-A244A	Valve & Spring Assembly (Items 36 thru 39)	1	96	4804G	Sealing Ring	1
40	4804H	"O" Ring	1	97	71-144B	Case & Adapter Gasket	1
41	10-00-191-002	3/8-18 Plastic Shipping Plug	1	98	444858	1/4 Pipe Plug	1
42	A4740G	Breather Assembly	1	99	71C-8	Forward & Reverse Adapter	1
43	444866	3/8-18 Pipe Plug	1	100	4911	3/8-16 X 1-1/4 Cap Screw	4
44	444687	1/8-27 Dryseal Plug	1	N.I.	71C-A80	Pump Assembly	1
45	71-1A195	Dipstick Assembly	1	101	Not Serviced	Pump Drive Gear (Order Pump Assembly)	1
46	71-42	Poppet Spring	1	102	Not Serviced	Pump Driven Gear (Order Pump Assembly)	1
47	453632	5/16 Steel Ball	1	103	3-61	Pump Gasket	1
48	71-79B	Forward & Reverse Shift Lever	1	104	Not Serviced	Pump Housing (Order Pump Assembly)	1
49	115729	5/16-24 Hex Nut	1	105	71C-82A	Oil Seal Assembly	1
50	108579	5/16 Lockwasher	1	106	179822	5/16-18 X 1-1/2 Hex Head Bolt	4
51	103340	Control Lever Washer	1				
52	444592	3/4 Pipe Plug	1				
53	5L-222	Spring	1				
54	35-143	Flat Washer	1				
55	72C-98	Oil Inlet Shield	1				
56	71-A1K	Transmission Case with Bushings	1				
57	R6-177	Dowel Pin	3				
58	Kit A4867VV	Presized Case Bushing (Two in Kit)	1				

N.I. - NOT ILLUSTRATED

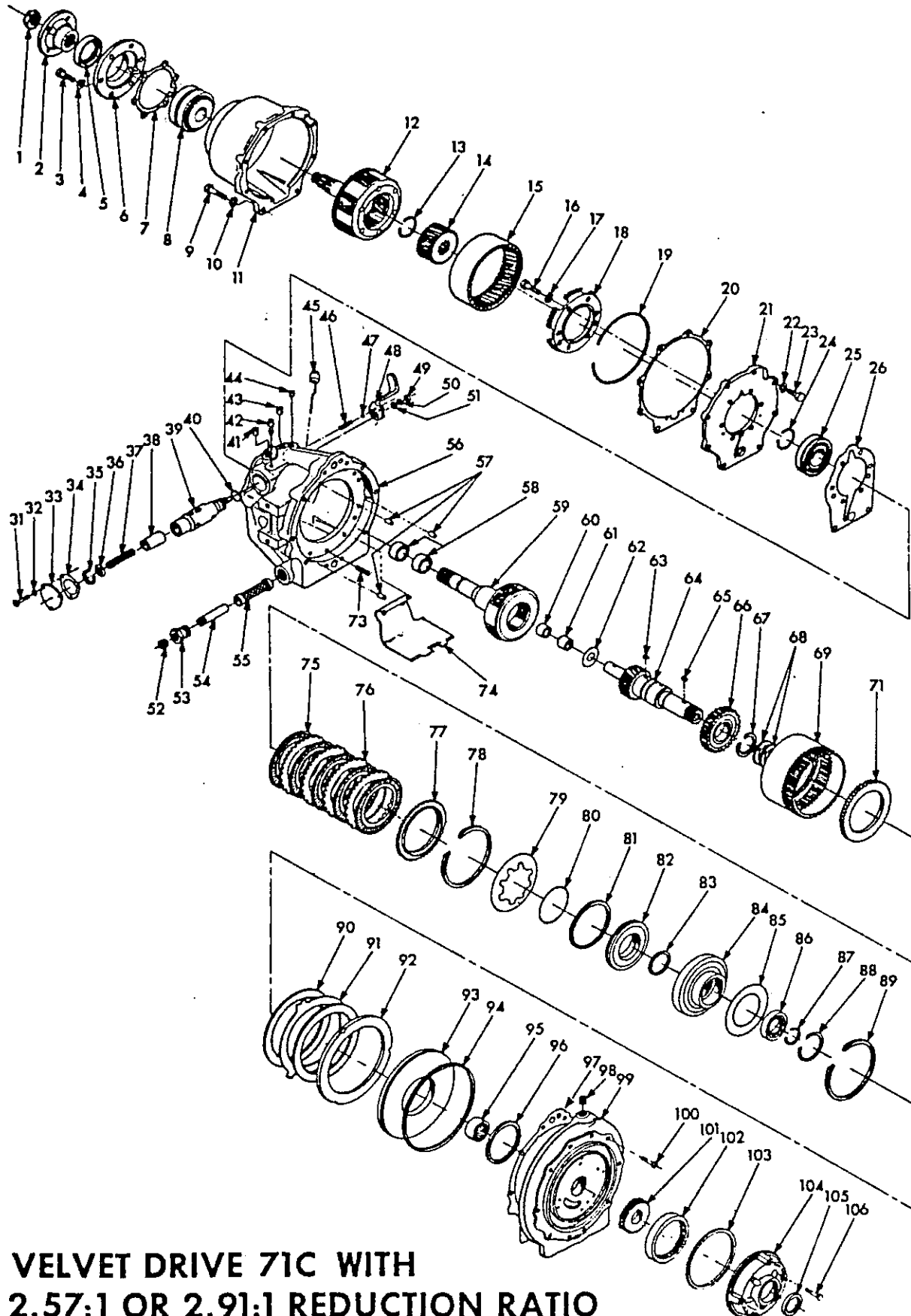
Warner Gear/Warner-Motive

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DIVISIONS OF BORG-WARNER CORPORATION



VELVET DRIVE® HYDRAULIC MARINE TRANSMISSION



**VELVET DRIVE 71C WITH
2.57:1 OR 2.91:1 REDUCTION RATIO**

VELVET DRIVE 71C WITH 2.57:1 OR 2.91:1 PARTS LIST

INDEX NO.	W. G. PART NO.	DESCRIPTION	NO. REQ.	INDEX NO.	W. G. PART NO.	DESCRIPTION	NO. REQ.
1	4775G	Main Shaft Nut 1000-149-D12	1	55	71C-A98A	Oil Strainer Assembly	1
2	4812	Coupling	1	56	71-A1K	Transmission Case with Bushings	1
3	179880	7/16-14 X 1-1/4 Hex Head Bolt	6	57	R6-177	Dowel Pin	3
4	103322	7/16 Lockwasher	6	58	Kit A4867VV	Presized Case Bushing (Two in Kit)	1
5	71C-110	Oil Seal	1	59	71-1A2C	Pinion Cage & Output Shaft Assembly	1
6	L4-7	Bearing Retainer	1	60	Kit A4867DD	Presized Bushing } One of Each in Kit	1
7	L4-147	Bearing Retainer Gasket	1	61		Presized Bushing }	
8	4020	Bearing	1	62	71-17	Thrust Washer	1
9	179864	7/16-14 X 1-3/4 Hex Head Bolt	2	63	218211	Woodruff Key	1
10	103322	7/16 Lockwasher	2	64	71C-A16	Drive Gear & Plug Assembly (26 Spline)	1
11	L7-1A	Reduction Housing (Current)	1	65	4873	Woodruff Key	1
	L7-1	Reduction Housing (Early)	1	66	71-40	Forward Clutch Hub	1
12	L6-A2D	Pinion Cage & Driven Shaft Ass'y (2.57:1 Only)	1	67	4495	Snap Ring	1
	L7-A2D	Pinion Cage & Driven Shaft Ass'y (2.91:1 Only)	1	68	4806J	Sealing Ring	2
13	4734	Snap Ring	1	69	71-8	Ring Gear	1
14	L6-104	Sun Gear (2.57:1 Only)	1	71	5L-67	Clutch Pressure Plate	1
	L7-104	Sun Gear (2.91:1 Only)	1	73	71-97	Pressure Plate Spring	12
15	L6-8	Ring Gear (2.57:1 Only)	1	74	71-140	Baffle	1
	L3-8	Ring Gear (2.91:1 Only)	1	75	5C-A66A	Clutch Inner Plate Assembly	5
16	4853E	Lock Bolt	6	76	3-176	Clutch Plate	4
17	114607	7/16 Lockwasher	6	77	5C-175A	Clutch Pressure Plate	1
18	L6-31	Stationary Gear Plate (2.57:1 Only)	1	78	4755	Clutch Spring Snap Ring	1
	L7-31	Stationary Gear Plate (2.91:1 Only)	1	79	3-37	Clutch Spring	1
19	4756E	Snap Ring (2.57:1 Only)	1	80	5C-33	Clutch Spring Bearing Ring	1
	4756D	Snap Ring (2.91:1 Only)	1	81	5L-36	Clutch Ring	1
20	L4-146	Adapter Gasket, Rear	1	82	71-45	Forward Clutch Piston	1
21	L7-8A	Reduction Unit Adapter (Current)	1	83	5M-122	Sealing Ring	1
	L7-8	Reduction Unit Adapter (Early)	1	84	71-70	Forward Clutch Cylinder	1
22	103321	3/8 Lockwasher	6	85	71-158	Thrust Washer	1
23	179840	3/8-18 X 1-1/8 Hex Head Bolt	6	86	B107A	Bearing	1
24	4816	Snap Ring	1	87	4734	Snap Ring	1
25	B308AGS	Bearing	1	88	R6A-71/2	Snap Ring	1
26	L4-145	Adapter Gasket, Front	1	89	4822	Ring Gear Snap Ring	1
31	179793	1/4-20 X 5/8 Hex Head Bolt	3	90	72-A658	Reverse Clutch Plate Assembly	2
32	103319	1/4 Lockwasher	3	91	72-176	Outer Clutch Plate	1
33	71-4	Valve Cover	1	92	71-71	Reverse Clutch Pressure Plate	1
34	71-14	Valve Cover Gasket	1	93	71-35	Reverse Clutch Piston	1
35	4821	Snap Ring	1	94	4805A	Sealing Ring	1
36	71-246	Valve Spring Retainer	1	95	4840D	Needle Bearing	1
37	71-242	Valve Spring	1	96	4804G	Sealing Ring	1
38	71-243	Pressure Regulator Valve	1	97	71-1448	Case & Adapter Gasket	1
39	71-244A	Forward & Reverse Gear Transmission Valve	1	98	444858	1/4 Pipe Plug	1
N.I.	71-A244A	Valve & Spring Assembly (Items 35 thru 39)	1	99	71C-8	Forward & Reverse Adapter	1
40	4804H	"O" Ring	1	100	4911	3/8-16 X 1-1/4 Cap Screw	4
41	10-00-191-002	3/8-18 Plastic Shipping Plug	1	N.I.	71C-A60	Pump Assembly	1
42	A4740G	Breather Assembly	1	101	Not Serviced	Pump Drive Gear (Order Pump Assembly)	1
43	444866	3/8-18 Pipe Plug	1	102	Not Serviced	Pump Driven Gear (Order Pump Assembly)	1
44	444687	1/8-27 Dryseal Plug	1	103	3-61	Pump Gasket	1
45	71-1A195	Dipstick Assembly	1	104	Not Serviced	Pump Housing (Order Pump Assembly)	1
46	71-42	Poppet Spring	1	105	71C-62A	Oil Seal Assembly	1
47	453632	5/16 Steel Ball	1	106	179822	5/16-18 X 1-1/2 Hex Head Bolt	4
48	71-79B	Forward & Reverse Shift Lever	1				
49	115729	5/16-24 Hex Nut	1				
50	108579	5/16 Lockwasher	1				
51	103340	Control Lever Washer	1				
52	10-00-191-002	3/8-18 Plastic Shipping Plug	1				
53	48858	Bushing	1				
54	71C-84	Oil Return Tube	1				

N.I. - NOT ILLUSTRATED

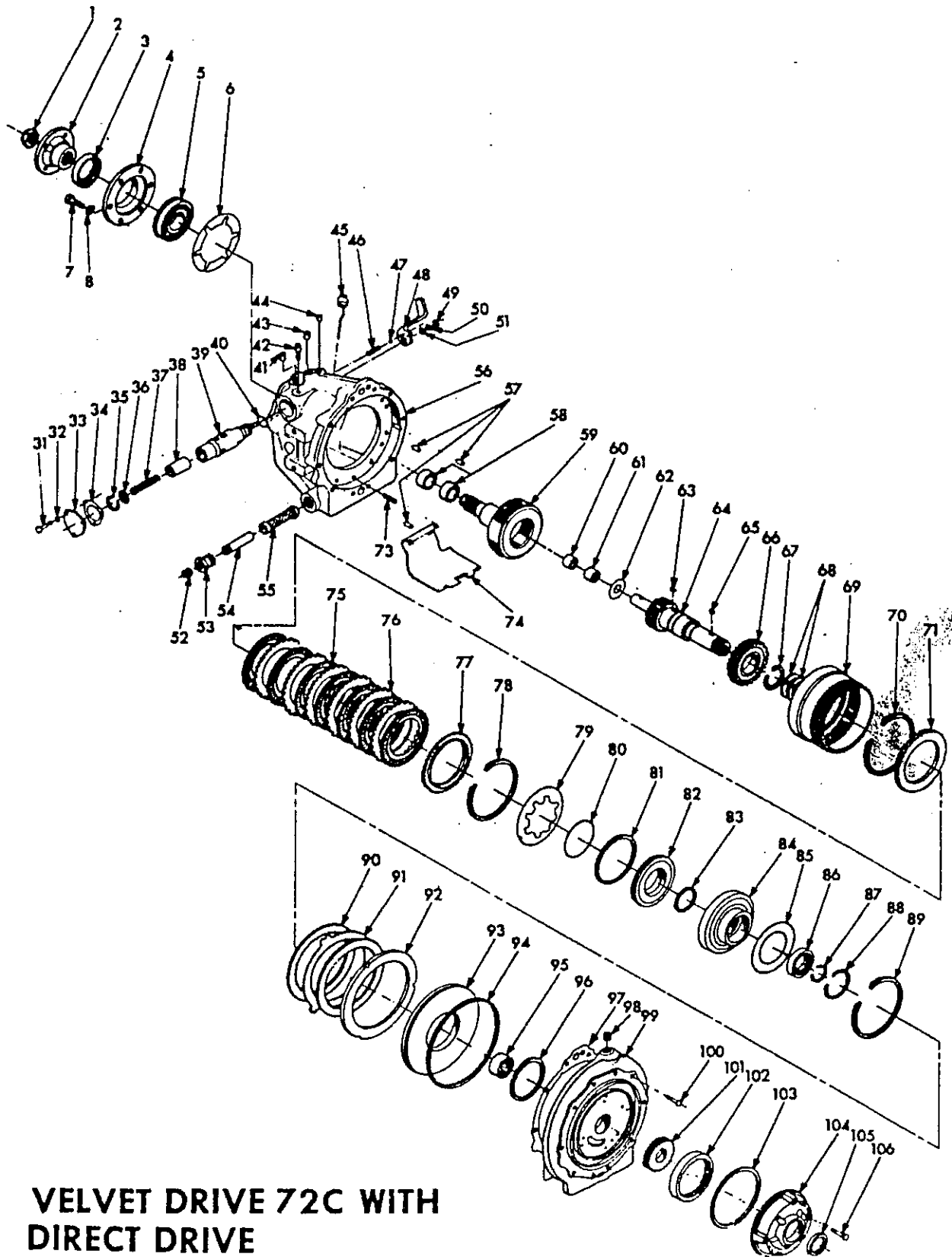
Warner Gear/Warner-Motive

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DIVISIONS OF BORG-WARNER CORPORATION



VELVET DRIVE® HYDRAULIC MARINE TRANSMISSION



**VELVET DRIVE 72C WITH
DIRECT DRIVE**

FORM 1073 2/71

PRINTED IN U.S.A.

AS11-72C DIRECT DRIVE PARTS LIST

INDEX NO.	W. G. PART NO.	DESCRIPTION	NO. REQ.	INDEX NO.	W. G. PART NO.	DESCRIPTION	NO. REQ.
1	4745L	Main Shaft Nut	1	78	4755	Clutch Spring Snap Ring	1
2	4647AY	Coupling	1	79	3-37	Clutch Spring	1
3	71C-110	Oil Seal	1	80	5C-33	Clutch Spring Bearing Ring	1
4	72-7	Bearing Retainer	1	81	5L-36	Clutch Ring	1
5	B308AGS	Annular Bearing	1	82	71-45	Forward Clutch Piston	1
6	72-147	Bearing Retainer Gasket	1	83	6M-122	Sealing Ring ("O" Ring)	1
7	4737Q	7/16-14 X 1-1/8 Hex Head Bolt	6	84	72-70	Forward Clutch Cylinder	1
8	X2979OR	7/16 Lockwasher	8	85	71-158	Thrust Washer	1
31	179793	1/4-20 X 5/8 Hex Head Nut	3	86	8108A	Bearing	1
32	103319	1/4 Lockwasher	3	87	4659A	Snap Ring	1
33	71-4	Valve Cover	1	88	4766B	Snap Ring	1
34	71-14	Valve Cover Gasket	1	89	4822	Ring Gear Snap Ring	1
N.I.	71-A244A	Valve & Spring Assembly (Items 35,36,37,38 & 39)	1	90	72-A668	Reverse Clutch Plate Assembly	2
35	4821	Snap Ring	1	91	72-176	Outer Clutch Plate	1
36	71-246	Valve Spring Retainer	1	92	71-71	Reverse Clutch Pressure Plate	1
37	71-242	Valve Spring	1	93	71-35	Reverse Clutch Piston	1
38	71-243	Pressure Regulator Valve	1	94	4806A	Sealing Ring	1
39	71-244A	Forward & Reverse Gear Transmission Valve	1	95	4840D	Needle Bearing	1
40	4804H	"O" Ring	1	96	4804G	Sealing Ring	1
41	10-00-191-002	3/8-18 Plastic Plug	1	97	71-1448	Case & Adapter Gasket	1
42	A4740G	Breather Assembly	1	98	444858	1/4 Pipe Plug	1
43	444856	3/8-18 Pipe Plug	2	99	71C-8	Forward & Reverse Adapter	1
44	444857	1/8-27 Pipe Plug	1	100	4911	3/8-16 X 1-1/4 Cap Screw	1
45	71-1A195	Dipstick Assembly	1	N.I.	71C-A80	Pump Assembly (Includes 101,102,104 & 105)	1
46	71-42	Poppet Spring	1	101	Not Serviced	Pump Drive Gear (Order Assembly)	1
47	463632	5/16 Steel Ball	1	102	Not Serviced	Pump Driven Gear (Order Assembly)	1
48	71-798	Forward & Reverse Shift Lever	1	103	3-61	Pump Gasket	1
49	115729	5/16-24 Hex Nut	1	104	Not Serviced	Pump Housing (Order Assembly)	1
50	108579	5/16 Lockwasher	1	105	71C-62A	Oil Seal Assembly	1
51	103340	Control Lever Washer	1	106	179822	5/16-18 X 1-1/2 Hex Head Bolt	1
52	10-00-191-002	3/8-18 Plastic Plug	1				
53	48858	Bushing	1				
54	71C-84	Oil Return Tube	1				
55	71C-A98A	Oil Strainer Assembly	1				
56	72-A1J	Transmission Case	1				
57	R8-177	Dowel Pin	3				
58	Kit A4857VV	Case Bushings (Two Presized Bushings in Kit)	1				
59	72-1A2	Pinion Cage & Output Shaft Assembly	1				
60	Kit A4857DD	Main Drive Gear Bushing (71-98 Presized) ONE OF EACH IN KIT	1				
61		Main Drive Gear Bushing (71-9C Presized)	1				
62	71-17	Thrust Washer	1				
63	124533	Woodruff Key	1				
64	72C-A16	Drive Gear & Plug Assembly	1				
65	4873	Woodruff Key	1				
66	72-40	Forward Clutch Hub	1				
67	4495	Snap Ring	1				
68	4806J	Sealing Ring	2				
69	72-6	Ring Gear	1				
70	4768	Snap Ring, Selective .050-.054, Green	1				
	4768A	.074-.078, Orange	1				
	4768B	.096-.100, White	1				
71	5L-87	Clutch Pressure Plate	1				
73	71-87	Pressure Plate Spring	12				
74	71-140	Baffle	1				
75	5C-A66A	Clutch Inner Plate Assembly	7				
76	3-176	Clutch Plate (Steel)	8				
77	5C-175A	Clutch Pressure Plate	1				

N.I. - NOT ILLUSTRATED

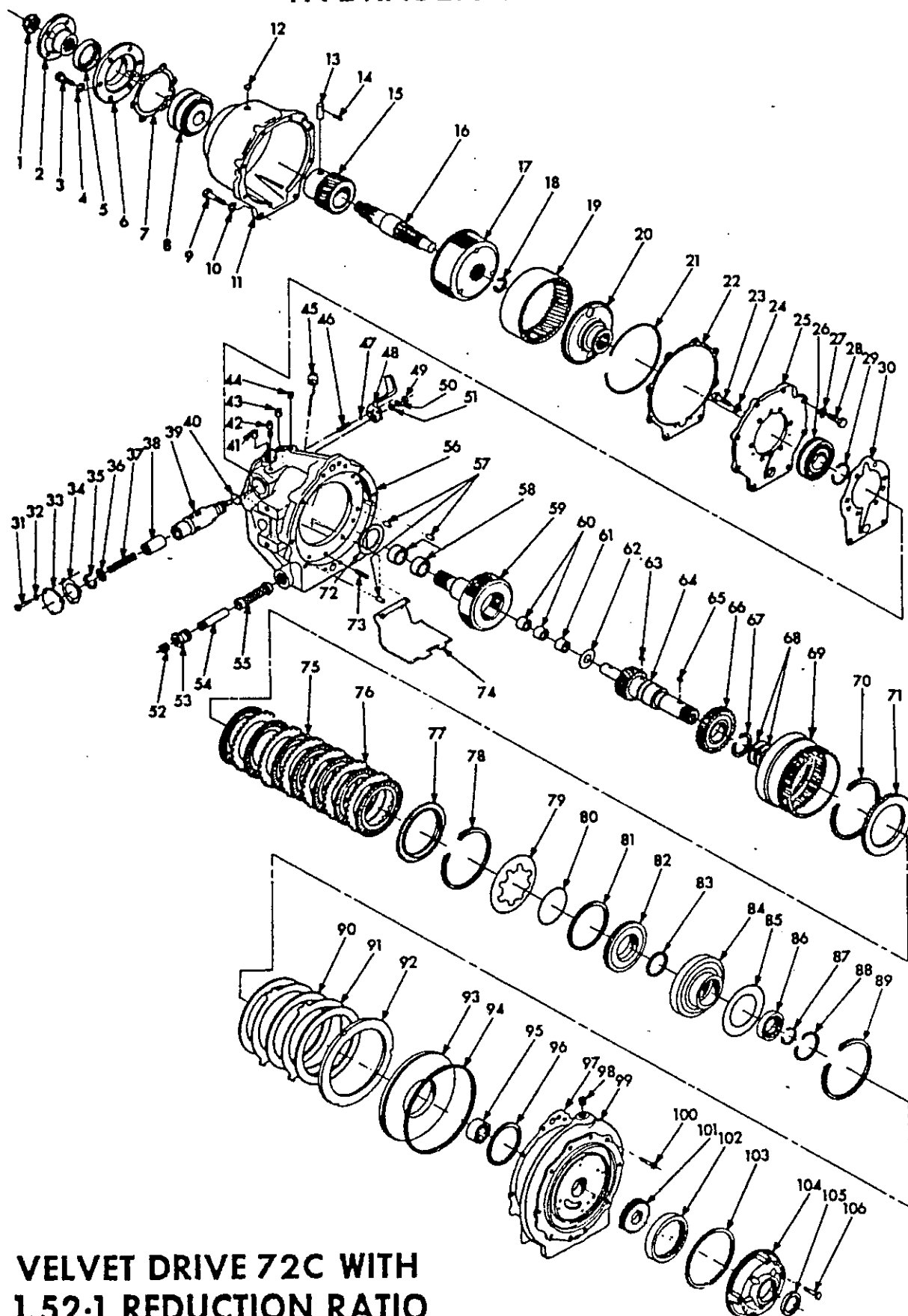
Warner Gear/Warner-Motive

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DIVISIONS OF BORG-WARNER CORPORATION



VELVET DRIVE® HYDRAULIC MARINE TRANSMISSION



**VELVET DRIVE 72C WITH
1.52:1 REDUCTION RATIO**

AS12-72C 1.52:1 PARTS LIST

INDEX NO.	W. G. PART NO.	DESCRIPTION	NO. REQ.	INDEX NO.	W. G. PART NO.	DESCRIPTION	NO. REQ.
1	4775L	Main Shaft Nut	1	56	72-A1K	Transmission Case with Bushings	1
2	4547AY	Coupling	1	57	4622E	Dowel Pin	3
3	179880	7/16-14 X 1-1/4 Hex Head Bolt	6	58	Kit A4867VV	Presized Case Bushing (Two in Kit)	1
4	103322	7/16 Lockwasher	6	59	72-1A2A	Pinion Cage & Output Shaft Assembly	1
5	71C-110	Oil Seal	1	60	Kit A4867DD	Presized Bushing } One of Each in Kit	2
6	L4-7	Bearing Retainer	1	61		Presized Bushing }	
7	L4-147	Bearing Retainer Gasket	1	62	71-17	Thrust Washer	1
8	4920A	Bearing	1	63	124553	Woodruff Key	1
9	179884	7/16-14 X 1-3/4 Hex Head Bolt	2	64	72C-A16	Drive Gear & Plug Assembly (26 Spline)	1
10	103322	7/16 Lockwasher	2	65	4873	Woodruff Key	1
11	L4-1A	Reduction Housing (Current)	1	66	72-40	Forward Clutch Hub	1
	L4-1	Reduction Housing (Early)	1	67	4495	Snap Ring	1
12	103891	Expansion Plug	1	68	4806J	Sealing Ring	2
13	L4-151	Pinion Cage Drive Pin	1	69	72-6	Ring Gear	1
14	4808	Spring Pin	1	70	4768	Snap Ring, Selective .050-.054, Green	1
15	L4-4	Sun Gear	1		4768A	.074-.078, Orange	1
16	L4-2	Main Shaft	1		4768B	.096-.100, White	1
17	L4-A150	Pinion Cage Assembly	1	71	5L-67	Clutch Pressure Plate	1
18	4734	Snap Ring	1	72	71-159	Thrust Washer	1
19	L3-6	Ring Gear	1	73	71-97	Pressure Plate Spring	12
20	L4-18	Input Gear	1	74	71-140	Baffle	1
21	47560	Snap Ring	1	75	5C-A66A	Clutch Inner Plate Assembly	7
22	L4-146	Adapter Gasket, Rear	1	76	3-178	Clutch Plate	6
23	48530	7/16-14 X 1 Lock Bolt	6	77	5C-175A	Clutch Pressure Plate	1
24	114607	7/16 Lockwasher	6	78	4755	Clutch Spring Snap Ring	1
25	L4-88	Reduction Unit Adapter (Current)	1	79	3-37	Clutch Spring	1
	L4-8	Reduction Unit Adapter (Early)	1	80	5C-33	Clutch Spring Bearing Ring	1
26	8111AG	Bearing	1	81	5L-36	Clutch Ring	1
27	103321	3/8 Lockwasher	6	82	71-45	Forward Clutch Piston	1
28	179840	3/8-16 X 1-1/8 Hex Head Bolt	6	83	5M-122	Sealing Ring	1
29	4766	Snap Ring	1	84	72-70	Forward Clutch Cylinder	1
30	L4-145	Adapter Gasket, Front	1	85	71-158	Thrust Washer	1
31	179793	1/4-20 X 5/8 Hex Head Bolt	3	86	8108A	Bearing	1
32	103319	1/4 Lockwasher	3	87	4559A	Snap Ring	1
33	71-4	Valve Cover	1	88	4766B	Snap Ring	1
34	71-14	Valve Cover Gasket	1	89	4822	Ring Gear Snap Ring	1
35	4821	Snap Ring	1	90	72-A66B	Reverse Clutch Plate Assembly	3
36	71-245	Valve Spring Retainer	1	91	72-176	Outer Clutch Plate	2
37	71-242	Valve Spring	1	92	71-71	Reverse Clutch Pressure Plate	1
38	71-243	Pressure Regulator Valve	1	93	71-35	Reverse Clutch Piston	1
39	71-244A	Forward & Reverse Gear Transmission Valve	1	94	4805A	Sealing Ring	1
N.I.	71-A244A	Valve & Spring Assembly (Items 35 thru 39)	1	95	4840D	Needle Bearing	1
40	4804H	"O" Ring	1	96	4804G	Sealing Ring	1
41	10-00-191-002	3/8-18 Plastic Shipping Plug	1	97	71-144B	Case & Adapter Gasket	1
42	A4740G	Breather Assembly	1	98	444858	1/4 Pipe Plug	1
43	444858	3/8-18 Pipe Plug	1	99	71C-8	Forward & Reverse Adapter	1
44	444687	1/8-27 Dryseal Plug	1	100	4911	3/8-16 X 1-1/4 Cap Screw	4
45	71-1A195	Dipstick Assembly	1	N.I.	71C-A60	Pump Assembly	1
46	71-42	Poppet Spring	1	101	Not Serviced	Pump Drive Gear (Order Pump Assembly)	1
47	453632	5/16 Steel Ball	1	102	Not Serviced	Pump Driven Gear (Order Pump Assembly)	1
48	71-798	Forward & Reverse Shift Lever	1	103	3-61	Pump Gasket	1
49	115729	5/16-24 Hex Nut	1	104	Not Serviced	Pump Housing (Order Pump Assembly)	1
50	108579	5/16 Lockwasher	1	105	71C-82A	Oil Seal Assembly	1
51	103340	Control Lever Washer	1	106	179822	5/16-18 X 1-1/2 Hex Head Bolt	4
52	10-00-191-002	3/8-18 Plastic Shipping Plug	1				
53	48858	Bushing	1				
54	71C-84	Oil Return Tube	1				
55	71C-A98A	Oil Strainer Assembly	1				

N.I. - NOT ILLUSTRATED

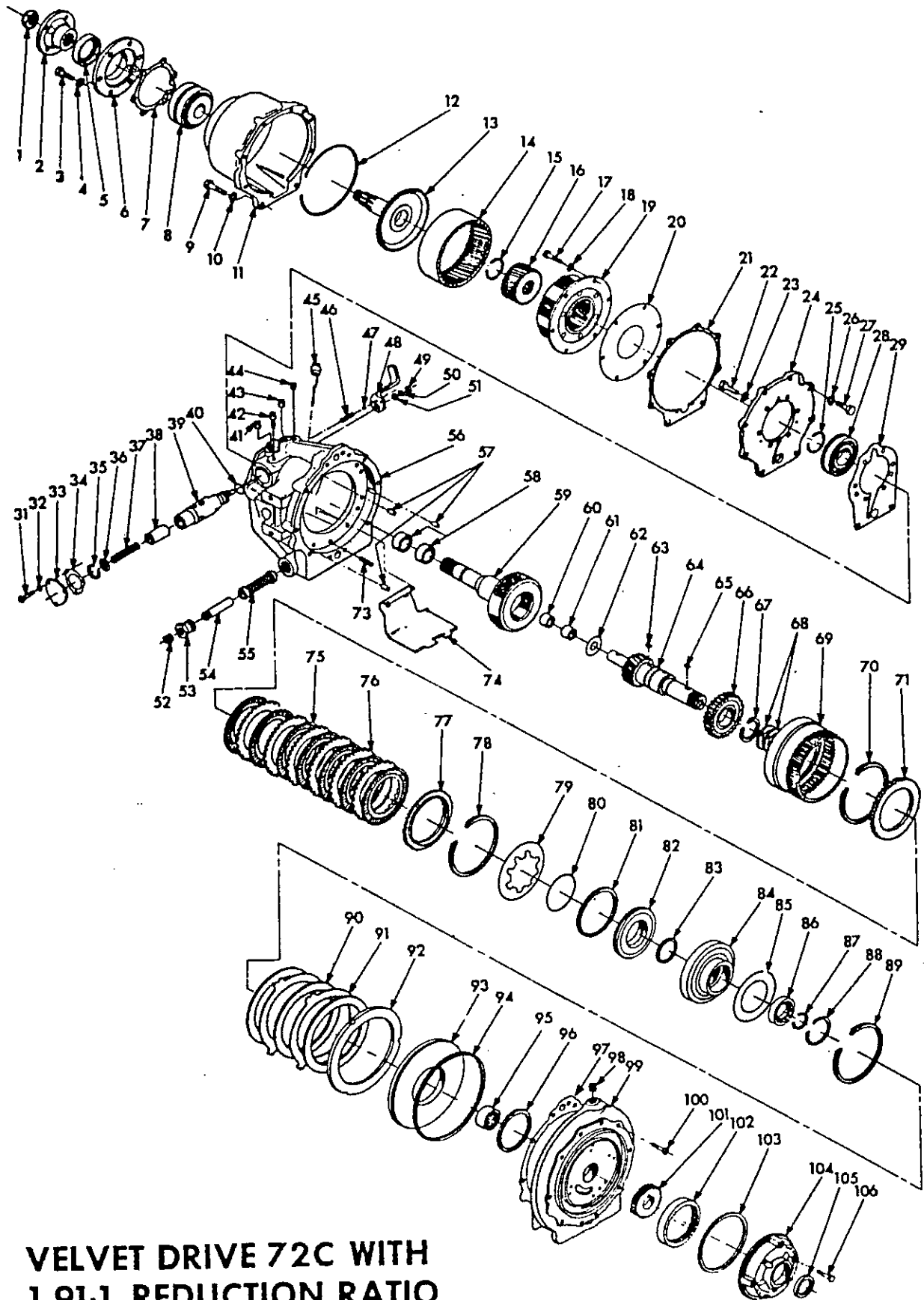
Warner Gear/Warner-Motive

General Offices, 1106 East Seymour Street, Muncie, Indiana 47302 Telephone: 317/284-8411

DIVISIONS OF BORG-WARNER CORPORATION



VELVET DRIVE® HYDRAULIC MARINE TRANSMISSION



**VELVET DRIVE 72C WITH
1.91:1 REDUCTION RATIO**

FORM 1080 2/71

PRINTED IN U.S.A.

AS17-72C 1.91:1 PARTS LIST

INDEX NO.	W. G. PART NO.	DESCRIPTION	NO. REQ.	INDEX NO.	W. G. PART NO.	DESCRIPTION	NO. REQ.
1	4775L	Main Shaft Nut	1	57	4622E	Dowel Pin	3
2	4647AY	Coupling	1	58	Kit A4867VV	Presized Case Bushing (Two In Kit)	1
3	179860	7/16-14 X 1-1/4 Hex Head Bolt	6	59	72-1A2C	Pinion Cage & Output Shaft Assembly	1
4	103322	7/16 Lockwasher	6	60		Presized 71-9B Main	One of Each Bushing in Kit
5	71C-110	Oil Seal	1		Kit A4867DD	Drive Gear Bushing	
6	L4-7	Bearing Retainer	1	61		Presized 71-9C Main	
7	L4-147	Bearing Retainer Gasket	1			Drive Gear Bushing	1
8	4920A	Bearing	1	62	71-17	Thrust Washer	1
9	179864	7/16-14 X 1-3/4 Hex Head Bolt	2	63	124553	Woodruff Key	1
10	103322	7/16 Lockwasher	2	64	72C-A16	Drive Gear & Plug Assembly (26 Spline)	1
11	L5-1A	Reduction Housing (Current)	1	65	4873	Woodruff Key	1
	L5-1	Reduction Housing (Early)	1	66	72-40	Forward Clutch Hub	1
12	4756D	Snap Ring	1	67	4495	Snap Ring	1
13	L9-2	Reduction Unit Main Shaft	1	68	4806J	Sealing Ring	2
14	L3-6	Ring Gear	1	69	72-6	Ring Gear	1
15	4734	Snap Ring	1	70	4768	Snap Ring, Selective .050-.064, Green	1
16	L7-104	Sun Gear	1		4768A	.074-.078, Orange	1
17	4853B	5/16-18 X 3/4 Lock Bolt	6		4768B	.096-.100, White	1
18	114605	5/16 Lockwasher	6	71	5L-67	Clutch Pressure Plate	1
19	L9-A150	Pinion Cage Assembly	1	73	71-97	Pressure Plate Spring	12
20	L9-98	Lube Oil Strainer	1	74	71-140	Baffle	1
21	L4-146	Adapter Gasket, Rear	1	75	5C-A66A	Clutch Inner Plate Assembly	7
22	4853D	7/16-14 X 1 Lock Bolt	6	76	3-176	Clutch Plate	6
23	114607	7/16 Lockwasher	6	77	5C-175A	Clutch Pressure Plate	1
24	L9-8A	Reduction Unit Adapter (Current)	1	78	4755	Clutch Spring Snap Ring	1
	L9-8	Reduction Unit Adapter (Early)	1	79	3-37	Clutch Spring	1
25	4816	Snap Ring	1	80	5C-33	Clutch Spring Bearing Ring	1
26	103321	3/8 Lockwasher	6	81	5L-36	Clutch Ring	1
27	179840	3/8-16 X 1-1/8 Hex Head Bolt	6	82	71-45	Forward Clutch Piston	1
28	B308AGS	Annular Bearing	1	83	5M-122	Sealing Ring	1
29	L4-145	Adapter Gasket, Front	1	84	72-70	Forward Clutch Cylinder	1
31	179793	1/4-20 X 5/8 Hex Head Bolt	3	85	71-15B	Thrust Washer	1
32	103319	1/4 Lockwasher	3	86	B108A	Bearing	1
33	71-4	Valve Cover	1	87	4559A	Snap Ring	1
34	71-14	Valve Cover Gasket	1	88	4766B	Snap Ring	1
35	4821	Snap Ring	1	89	4822	Ring Gear Snap Ring	1
36	71-246	Valve Spring Retainer	1	90	72-A66B	Reverse Clutch Plate Assembly	3
37	71-242	Valve Spring	1	91	72-176	Outer Clutch Plate	2
38	71-243	Pressure Regulator Valve	1	92	71-71	Reverse Clutch Pressure Plate	1
39	71-244A	Forward & Reverse Gear Transmission Valve	1	93	71-35	Reverse Clutch Piston	1
N.I.	71-A244A	Valve & Spring Assembly (Items 35 thru 40)	1	94	4805A	Sealing Ring	1
40	4804H	"O" Ring	1	95	4840D	Needle Bearing	1
41	10-00-191-002	3/8-18 Plastic Shipping Plug	1	96	4804G	Sealing Ring	1
42	A4740G	Breather Assembly	1	97	71-144B	Case & Adapter Gasket	1
43	444586	3/8-18 Pipe Plug	1	98	444858	1/4 Pipe Plug	1
44	444687	1/8-27 Dryseal Plug	1	99	71C-8	Forward & Reverse Adapter	1
45	71-1A195	Dipstick Assembly	1	100	4911	3/8-16 X 1-1/4 Cap Screw	4
46	71-42	Poppet Spring	1	N.I.	71C-A60	Pump Assembly	1
47	453632	5/16 Steel Ball	1	101	Not Serviced	Pump Drive Gear (Order Pump Assembly)	1
48	71-798	Forward & Reverse Shift Lever	1	102	Not Serviced	Pump Drive Gear (Order Pump Assembly)	1
49	115729	5/16-24 Hex Nut	1	103	3-61	Pump Gasket	1
50	108579	5/16 Lockwasher	1	104	Not Serviced	Pump Housing (Order Pump Assembly)	1
51	103340	Control Lever Washer	1	105	71C-62A	Oil Seal Assembly	1
52	10-00-191-002	3/8-18 Plastic Shipping Plug	1	106	179822	5/16-18 X 1-1/2 Hex Head Bolt	4
53	4885B	Bushing	1				
54	71C-84	Oil Return Tube	1				
55	71C-A98A	Oil Strainer Assembly	1				
56	72-1K	Transmission Case with Bushings	1				

N.I. - NOT ILLUSTRATED

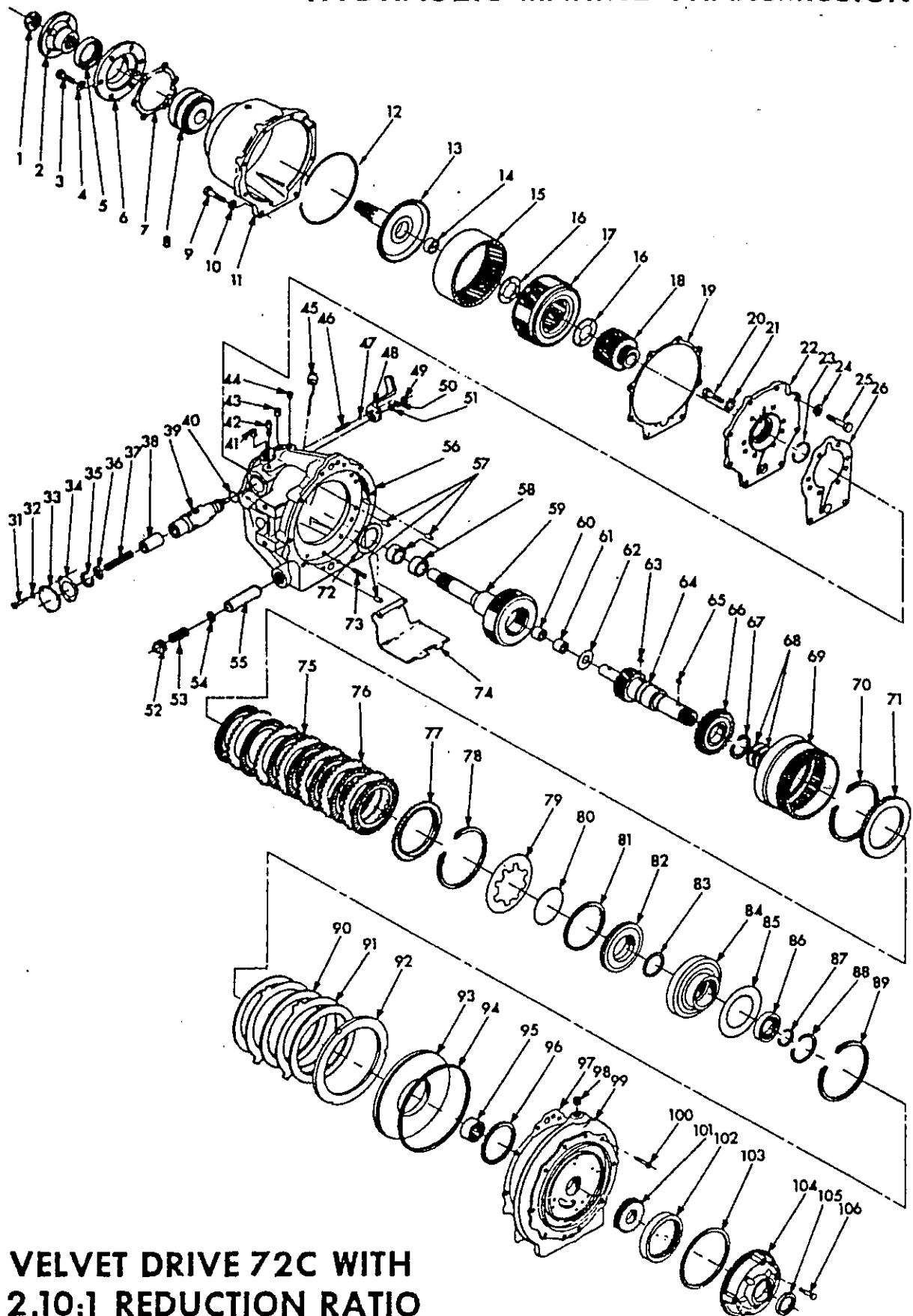
Warner Gear/Warner-Motive

General Offices, 1106 East Seymour Street, Muncie, Indiana 47302 Telephone: 317/284-8411

DIVISIONS OF BORG-WARNER CORPORATION



VELVET DRIVE® HYDRAULIC MARINE TRANSMISSION



VELVET DRIVE 72C WITH 2.10:1 REDUCTION RATIO

AS13-72C 2.10:1 PARTS LIST

INDEX NO.	W. G. PART NO.	DESCRIPTION	NO. REQ.	INDEX NO.	W. G. PART NO.	DESCRIPTION	NO. REQ.
1	4775L	Main Shaft Nut	1	59	72-1A2B	Pinion Cage & Output Shaft Assembly	1
2	4547AY	Coupling	1	60		Presized 71-9B Main	
3	179860	7/16-14 X 1-1/4 Hex Head Bolt	6		Kit A4867DD	Drive Gear Bushing	1
4	103322	7/16 Lockwasher	6	61		Presized 71-9C Main	One of Each Bushing In Kit
5	71C-110	Oil Seal	1			Drive Gear Bushing	
6	L4-7	Bearing Retainer	1	62	71-17	Thrust Washer	1
7	L4-147	Bearing Retainer Gasket	1	63	124553	Woodruff Key	1
8	4920A	Bearing	1	64	72C-A16	Drive Gear & Plug Assembly (26 Spline)	1
9	179864	7/16-14 X 1-3/4 Hex Head Bolt	2	65	4873	Woodruff Key	1
10	103322	7/16 Lockwasher	2	66	72-40	Forward Clutch Hub	1
11	L5-1B	Reduction Housing (Current)	1	67	4495	Snap Ring	1
	L5-1	Reduction Housing (Early)	1	68	4806J	Sealing Ring	2
12	4756D	Ring Gear Snap Ring	1	69	72-6	Ring Gear	1
13	L5-A2	Reduction Unit Main Shaft & Bushing	1	70	4768	Snap Ring, Selective .060-.064, Green	1
14	Kit A4867DD	Bushing (71-9B Presized for Service)	1		4768A	.074-.078, Orange	1
15	L3-6	Ring Gear	1		4768B	.096-.100, White	1
16	L3-24	Thrust Washer	2	71	5L-67	Clutch Pressure Plate	1
17	L5-1A150	Planetary Gears & Cage Assembly (For CR Unit)	1	72	71-159	Thrust Washer	1
	L5A-1A150	Planetary Gears & Cage Assembly (For C Unit)	1	73	71-67	Pressure Plate Spring	12
18	L5-4	Sun Gear	1	74	71-140	Baffle	1
19	L4-146	Adapter Gasket, Rear	1	75	5C-A66A	Clutch Inner Plate Assembly	7
20	4853D	Lock Bolt	6	76	3-176	Clutch Plate	6
21	114607	7/16 Lockwasher	6	77	5C-175A	Clutch Pressure Plate	1
22	L5-8A	Reduction Unit Adapter (Current)	1	78	4755	Clutch Spring Snap Ring	1
	L5-8	Reduction Unit Adapter (Early, without track)	1	79	3-37	Clutch Spring	1
23	4766A	Snap Ring	1	80	5C-33	Clutch Spring Bearing Ring	1
24	103321	3/8 Lockwasher	6	81	5L-36	Clutch Ring	1
25	179840	3/8-18 X 1-1/8 Hex Head Bolt	6	82	71-45	Forward Clutch Piston	1
26	L4-146	Reduction Unit Adapter Gasket, Front	1	83	5M-122	Sealing Ring	1
31	179793	1/4-20 X 5/8 Hex Head Bolt	3	84	72-70	Forward Clutch Cylinder	1
32	103319	1/4 Lockwasher	3	85	71-158	Thrust Washer	1
33	71-4	Valve Cover	1	86	8108A	Bearing	1
34	71-14	Valve Cover Gasket	1	87	4659A	Snap Ring	1
35	4821	Snap Ring	1	88	4766B	Snap Ring	1
36	71-246	Valve Spring Retainer	1	89	4822	Ring Gear Snap Ring	1
37	71-242	Valve Spring	1	90	72-A66B	Reverse Clutch Plate Assembly	3
38	71-243	Pressure Regulator Valve	1	91	72-176	Outer Clutch Plate	2
39	71-244A	Forward & Reverse Gear Transmission Valve	1	92	71-71	Reverse Clutch Pressure Plate	1
N.I.	71-A244A	Valve & Spring Assembly (Items 36 thru 39)	1	93	71-35	Reverse Clutch Piston	1
40	4804H	"O" Ring	1	94	4806A	Sealing Ring	1
41	10-00-191-002	3/8-18 Plastic Shipping Plug	1	95	48400	Needle Bearing	1
42	A4740G	Breather Assembly	1	96	4804G	Sealing Ring	1
43	444866	3/8-18 Pipe Plug	1	97	71-144B	Case & Adapter Gasket	1
44	444867	1/8-27 Dryseal Plug	1	98	444858	1/4 Pipe Plug	1
45	71-1A195	Dipstick Assembly	1	99	71C-8	Forward & Reverse Adapter	1
46	71-42	Poppet Spring	1	100	4911	3/8-16 X 1-1/4 Cap Screw	4
47	453632	5/16 Steel Ball	1	N.I.	71C-A60	Pump Assembly	1
48	71-79B	Forward & Reverse Shift Lever	1	101	Not Serviced	Pump Drive Gear (Order Pump Assembly)	1
49	115729	5/16-24 Hex Nut	1	102	Not Serviced	Pump Driven Gear (Order Pump Assembly)	1
50	108579	5/16 Lockwasher	1	103	3-61	Pump Gasket	1
51	103340	Control Lever Washer	1	104	Not Serviced	Pump Housing (Order Pump Assembly)	1
52	444592	3/4 Pipe Plug	1	105	71C-62A	Oil Seal Assembly 1000 044-44	1
53	5L-222	Spring	1	106	179822	5/16-18 X 1-1/2 Hex Head Bolt	4
54	35-143	Flat Washer	1				
55	72C-98	Oil Inlet Shield	1				
56	72-A1K	Transmission Case with Bushings	1				
57	4622E	Dowel Pin	3				
58	Kit A4867VV	Presized Case Bushing (Two in Kit)	1				

N.I. - NOT ILLUSTRATE

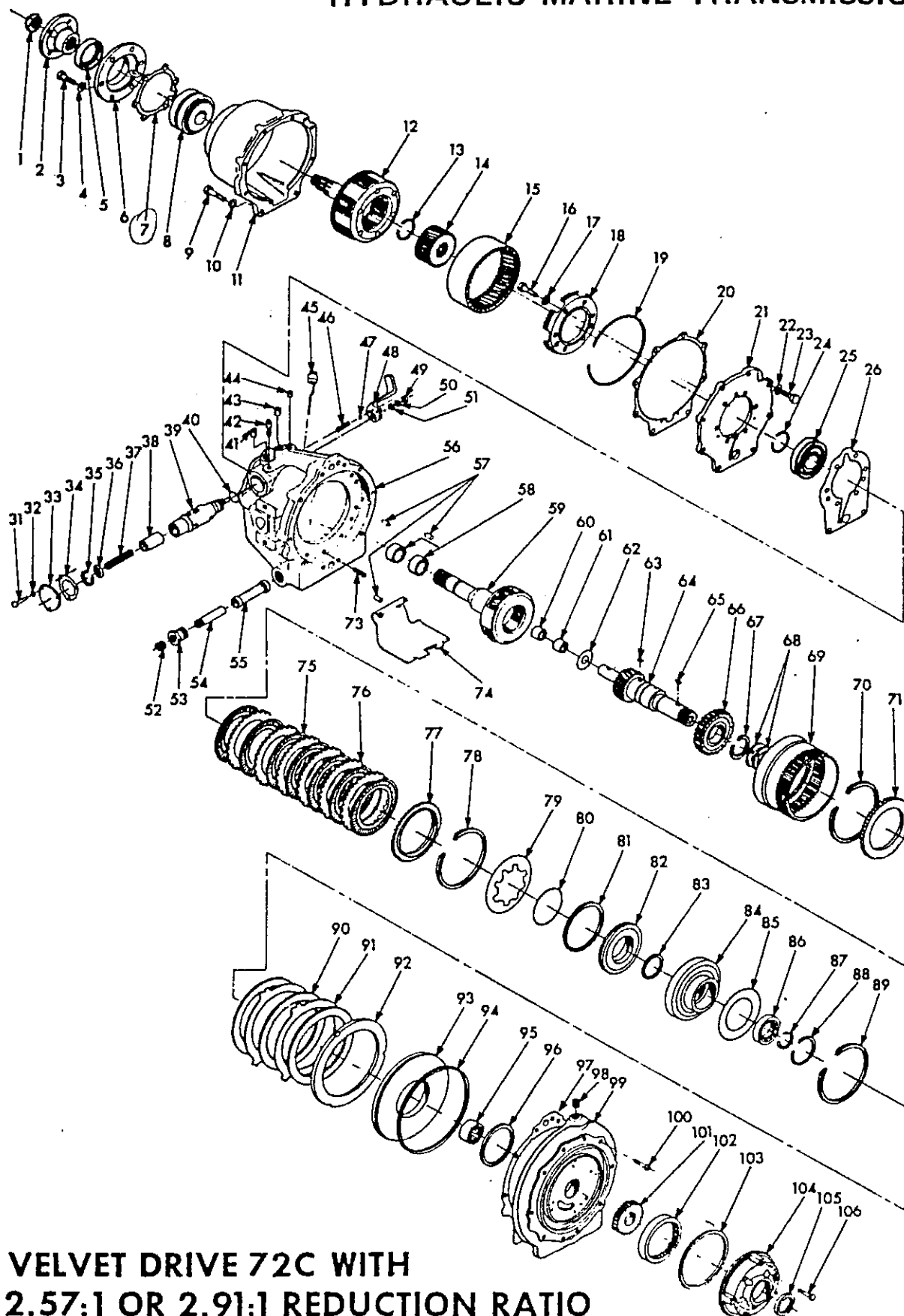
Warner Gear/Warner-Motive

General Offices, 1106 East Seymour Street, Muncie, Indiana 47302 Telephone: 317/284-8411

DIVISIONS OF BORG-WARNER CORPORATION



VELVET DRIVE® HYDRAULIC MARINE TRANSMISSION



**VELVET DRIVE 72C WITH
2.57:1 OR 2.91:1 REDUCTION RATIO**

FORM 1086 2/71

PRINTED IN U.S.A.

VELVET DRIVE 72C WITH 2.57:1 OR 2.91:1 PARTS LIST

INDEX NO.	W. G. PART NO.	DESCRIPTION	NO. REQ.	INDEX NO.	W. G. PART NO.	DESCRIPTION	NO. REQ.
1	4376Q	Main Shaft Nut 1000-149-072	1	55	71C-A98A	Oil Strainer Assembly	1
2	4912	Coupling	1	56	72-A1K	Transmission Case with Bushings	1
3	179880	7/16-14 X 1-1/4 Hex Head Bolt	8	57	4622E	Dowel Pin	3
4	103322	7/16 Lockwasher	6	58	Kit A4867VV	Presized Case Bushing (Two in Kit)	1
5	71C-110	Oil Seal	1	59	72-1A2C	Pinion Cage & Output Shaft Assembly	1
6	L4-7	Bearing Retainer	1	60		Presized Bushing	1
7	L4-147	Bearing Retainer Gasket	1	61	Kit A4867DD	Presized Bushing	
8	4920	Bearing	1	62	71-17	Thrust Washer	1
9	179864	7/16-14 X 1-3/4 Hex Head Bolt	2	63	124553	Woodruff Key	1
10	103322	7/16 Lockwasher	2	64	72C-A16	Drive Gear & Plug Assembly (26 Splines)	1
11	L7-1A	Reduction Housing (Current)	1	65	4873	Woodruff Key	1
	L7-1	Reduction Housing (Early)	1	66	72-40	Forward Clutch Hub	1
12	L8-A2D	Pinion Cage & Driven Shaft Ass'y (2.57:1 Only)	1	67	4495	Snap Ring	1
	L7-A2D	Pinion Cage & Driven Shaft Ass'y (2.91:1 Only)	1	68	4808J	Sealing Ring	2
13	4734	Snap Ring	1	69	72-6	Ring Gear	1
14	L6-104	Sun Gear (2.57:1 Only)	1	70	4768	Snap Ring, Selective .060-.064, Green	1
	L7-104	Sun Gear (2.91:1 Only)	1		4768A	.074-.078, Orange	1
15	L8-8	Ring Gear (2.57:1 Only)	1		4768B	.095-.100, White	1
	L3-6	Ring Gear (2.91:1 Only)	1	71	5L-67	Clutch Pressure Plate	1
16	4853E	Lock Bolt	6	73	71-87	Pressure Plate Spring	12
17	114807	7/16 Lockwasher	6	74	71-140	Baffle	1
18	L8-31	Stationary Gear Plate (2.57:1 Only)	1	75	5C-A66A	Clutch Inner Plate Assembly	7
	L7-31	Stationary Gear Plate (2.91:1 Only)	1	76	3-176	Clutch Plate	6
19	4766E	Snap Ring (2.57:1 Only)	1	77	5C-175A	Clutch Pressure Plate	1
	4756D	Snap Ring (2.91:1 Only)	1	78	4755	Clutch Spring Snap Ring	1
20	L4-146	Adapter Gasket, Rear	1	79	3-37	Clutch Spring	1
21	L7-8A	Reduction Unit Adapter (Current)	1	80	5C-33	Clutch Spring Bearing Ring	1
	L7-8	Reduction Unit Adapter (Early)	1	81	5L-36	Clutch Ring	1
22	103321	3/8 Lockwasher	6	82	71-45	Forward Clutch Piston	1
23	179840	3/8-16 X 1-1/8 Hex Head Bolt	6	83	5M-122	Sealing Ring	1
24	4816	Snap Ring	1	84	72-70	Forward Clutch Cylinder	1
25	8308AGS	Bearing	1	85	71-15B	Thrust Washer	1
26	L4-145	Adapter Gasket, Front	1	86	8108A	Bearing	1
31	179793	1/4-20 X 5/8 Hex Head Bolt	3	87	4559A	Snap Ring	1
32	103319	1/4 Lockwasher	3	88	1766B	Snap Ring	1
33	71-4	Valve Cover	1	89	4822	Ring Gear Snap Ring	1
34	71-14	Valve Cover Gasket	1	90	72-A66B	Reverse Clutch Plate Assembly	3
35	4821	Snap Ring	1	91	72-176	Outer Clutch Plate	2
36	71-246	Valve Spring Retainer	1	92	71-71	Reverse Clutch Pressure Plate	1
37	71-242	Valve Spring	1	93	71-35	Reverse Clutch Piston	1
38	71-243	Pressure Regulator Valve	1	94	4806A	Sealing Ring	1
39	71-244A	Forward & Reverse Gear Transmission Valve	1	95	48400	Needle Bearing	1
N.I.	71-A244A	Valve & Spring Assembly (Items 35 thru 39)	1	96	4804G	Sealing Ring	1
40	4804H	"O" Ring	1	97	71-144B	Case & Adapter Gasket	1
41	10-00-191-002	3/8-18 Plastic Shipping Plug	1	98	444858	1/4 Pipe Plug	1
42	A4740G	Breather Assembly	1	99	71C-8	Forward & Reverse Adapter	1
43	444856	3/8-18 Pipe Plug	1	100	4911	3/8-16 X 1-1/4 Cap Screw	4
44	444887	1/8-27 Dryseal Plug	1	N.I.	71C-A80	Pump Assembly	1
45	71-1A195	Dipstick Assembly	1	101	Not Serviced	Pump Drive Gear (Order Pump Assembly)	1
46	71-42	Poppet Spring	1	102	Not Serviced	Pump Driven Gear (Order Pump Assembly)	1
47	453632	5/16 Steel Ball	1	103	3-61	Pump Gasket	1
48	71-79B	Forward & Reverse Shift Lever	1	104	Not Serviced	Pump Housing (Order Pump Assembly)	1
49	115729	5/16-24 Hex Nut	1	105	71C-62A	Oil Seal Assembly	1
50	108579	5/16 Lockwasher	1	106	179822	5/16-18 X 1-1/2 Hex Head Bolt	4
51	103340	Control Lever Washer	1				
52	10-00-191-002	3/8-18 Plastic Shipping Plug	1				
53	4885B	Bushing	1				
54	71C-84	Oil Return Tube	1				

N.I. - NOT ILLUSTRATE

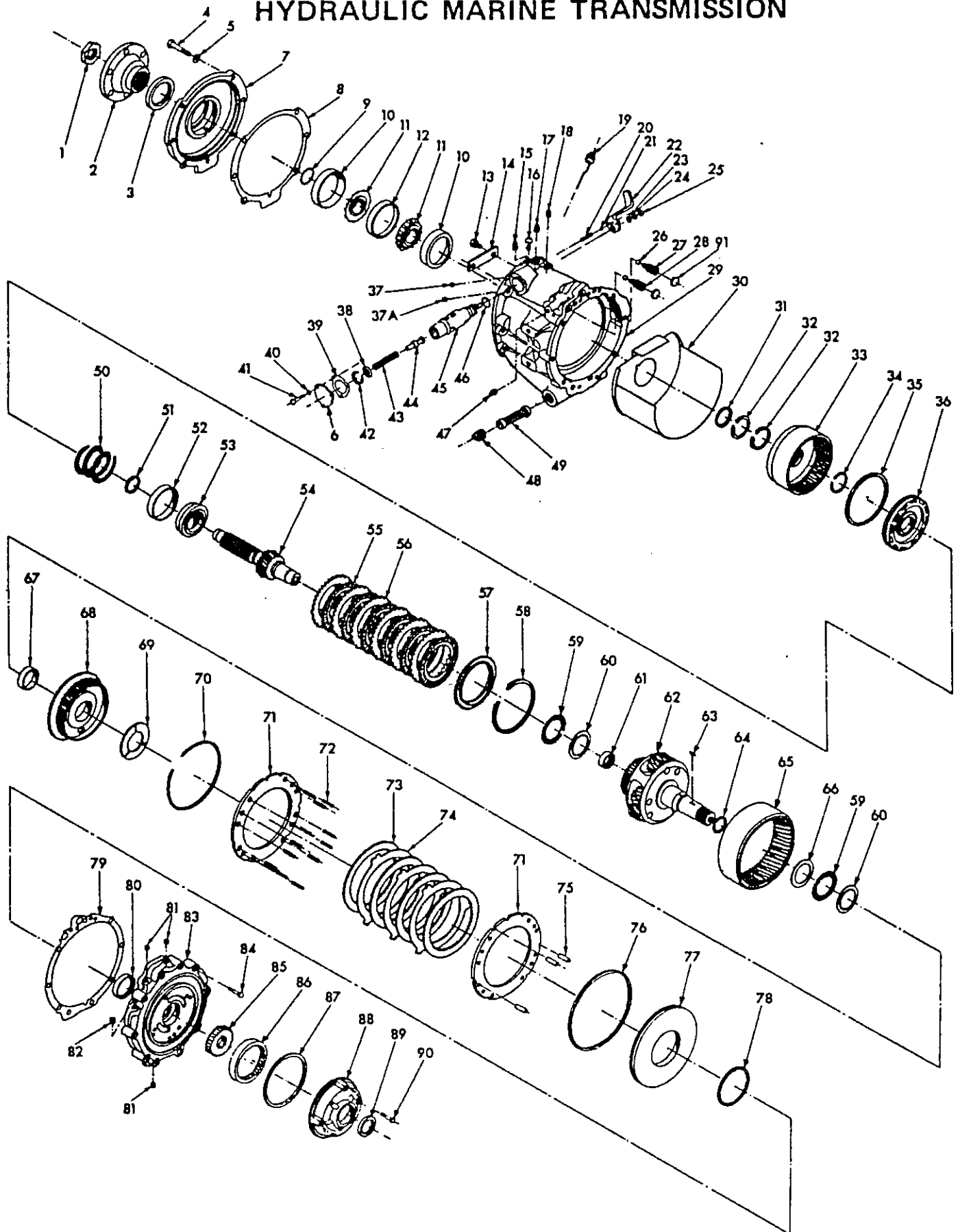
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DIVISIONS OF BORG-WARNER CORPORATION



VELVET DRIVE® HYDRAULIC MARINE TRANSMISSION



73C DIRECT DRIVE TRANSMISSION

FORM 1067 2/71

PRINTED IN U.S.A.

AS1-73C DIRECT DRIVE PARTS LIST

INDEX NO.	W. G. PART NO.	DESCRIPTION	NO. REQ.	INDEX NO.	W. G. PART NO.	DESCRIPTION	NO. REQ.
1	4775T	Main Shaft Nut	1	57	5L-67	Clutch Pressure Plate	1
2	4914A	Coupling	1	58	4751	Snap Ring	1
3	414-119A	Oil Seal 1000-044-017	1	59	4830D	Needle Bearing	2
4	179860	7/16-14 X 1-1/4 Hex Head Bolt	6	60	4832B	Thrust Bearing Race	2
5	103322	7/16 Lockwasher	6	61	4840R	Needle Bearing	1
6	71-4	Valve Cover	1	62	73C-1A16E	Input Shaft & Planet Carrier Assembly	1
7	73C-7	Bearing Retainer	1	63	4897A	Pump Drive Key	1
8	73C-145	Case Rear Gasket	1	64	4806A	Sealing Ring	1
9	3-34	"O" Ring	1	65	73C-6	Ring Gear	1
10	4823G	Bearing Cup	2	66	4832A	Needle Bearing Thrust Race	1
11	4922G	Bearing Cone	2	67	Not Serviced	Ring Gear Hub Bushing (Order Assembly)	1
12	73C-75	Bearing Spacer	1	68	73C-A106A	Ring Gear Hub & Ass'y (Includes item 67)	1
13	47768B	7/16-14 X 7/8 Hex Head Bolt	2	69	73C-15	Ring Gear Hub Thrust Washer	1
14	73C-51	Lube Line Cover	1	70	4822A	Ring Gear Snap Ring	1
15	444852	1/8 Pipe Plug	1	71	73C-71	Reverse Clutch Pressure Plate	2
16	4740A	Breather Assembly	1	72	71-97	Pressure Plate Spring	12
17	444864	3/8 Pipe Plug	1	73	72-A66B	Reverse Clutch Plate, Inner	4
18	444864	3/8 Pipe Plug	1	74	72-176	Reverse Clutch Plate, Outer	3
19	71-2A195	Dipstick Assembly	1	75	4622F	Dowel Pin	3
20	71-42	Poppet Spring	1	76	4805A	Sealing Ring	1
21	453632	5/16 Steel Ball	1	77	71-35	Reverse Clutch Piston	1
22	68C-79	Forward & Reverse Shift Lever	1	78	4804G	Sealing Ring	1
23	103340	Control Lever Washer	1	79	73C-144	Case & Adapter Gasket	1
24	108579	5/16 Lockwasher	1	80	4840T	Needle Bearing	1
25	115729	5/16-24 Hex Nut	1	81	444852	1/8 Pipe Plug	1
26	453595	7/16 Steel Ball	2	82	444858	1/4 Pipe Plug	1
27	72M-273	Cooler Check Valve Spring	1	83	73C-8	Transmission Adapter	1
28	68C-269	Check Valve Spring	1	84	4911	3/8-16 X 1-1/4 Cap Screw	1
29	A73C-1A	Forward & Reverse Transmission Case & Plug Ass'y	1	N.I.	71C-A60	Pump Assembly (Items 85,86,88 & 89)	1
30	73C-140	Oil Baffle	1	85	Not Serviced	Pump Drive Gear (Order Assembly)	1
31	4652KK	Bearing Spacer	1	86	Not Serviced	Pump Driven Gear (Order Assembly)	1
32	4806R	Sealing Ring	2	87	3-61	Pump Gasket	1
33	73C-50A	Direct Clutch Cylinder	1	88	Not Serviced	Pump Housing (Order Assembly)	1
34	4559A	Snap Ring	1	89	71C-62A	Oil Seal Assembly	1
35	3-46	Sealing Ring	1	90	179822	5/16-18 X 1-1/2 Hex Head Bolt	4
36	6-A45	Clutch Piston and Ball Assembly	1	91	68C-268	Check Valve Spring Retainer	1
37	4572T	Plug	1	N.I.	4636KR	Service Name Plate	1
37A	4572N	Plug	1	N.I.	145370	Drive Screw	4
38	71-246	Valve Spring Retainer	1				
39	71-14	Valve Cover Gasket	1				
40	103319	1/4 Lockwasher	3				
41	179793	1/4-20 X 5/8 Hex Head Bolt	3				
42	4821	Snap Ring	1				
43	5G-246	Valve Spring	1				
44	73C-243	Pressure Regulator Valve	1				
45	73C-244	Forward & Reverse Gear Transmission Valve	1				
N.I.	73C-A244	Valve Assembly (Items 42,43,44,45)	1				
46	4804H	"O" Ring	1				
47	444864	3/8 Pipe Plug	2				
48	444592	3/4 Pipe Plug	1				
49	71C-A98A	Oil Strainer Assembly	1				
50	3-47A	Clutch Spring	1				
51	3-44	Sealing Ring	1				
52	Not Serviced	Bearing Sleeve Bushing (Order Assembly)	1				
53	73C-A12A	Bearing Sleeve & Bushing Ass'y (Includes item 52)	1				
54	73C-1A2F	Output Shaft and Sleeve Ass'y (Includes item 53)	1				
55	5C-A66A	Clutch Inner Plate Assembly	6				
56	3-65	Clutch Plate	6				

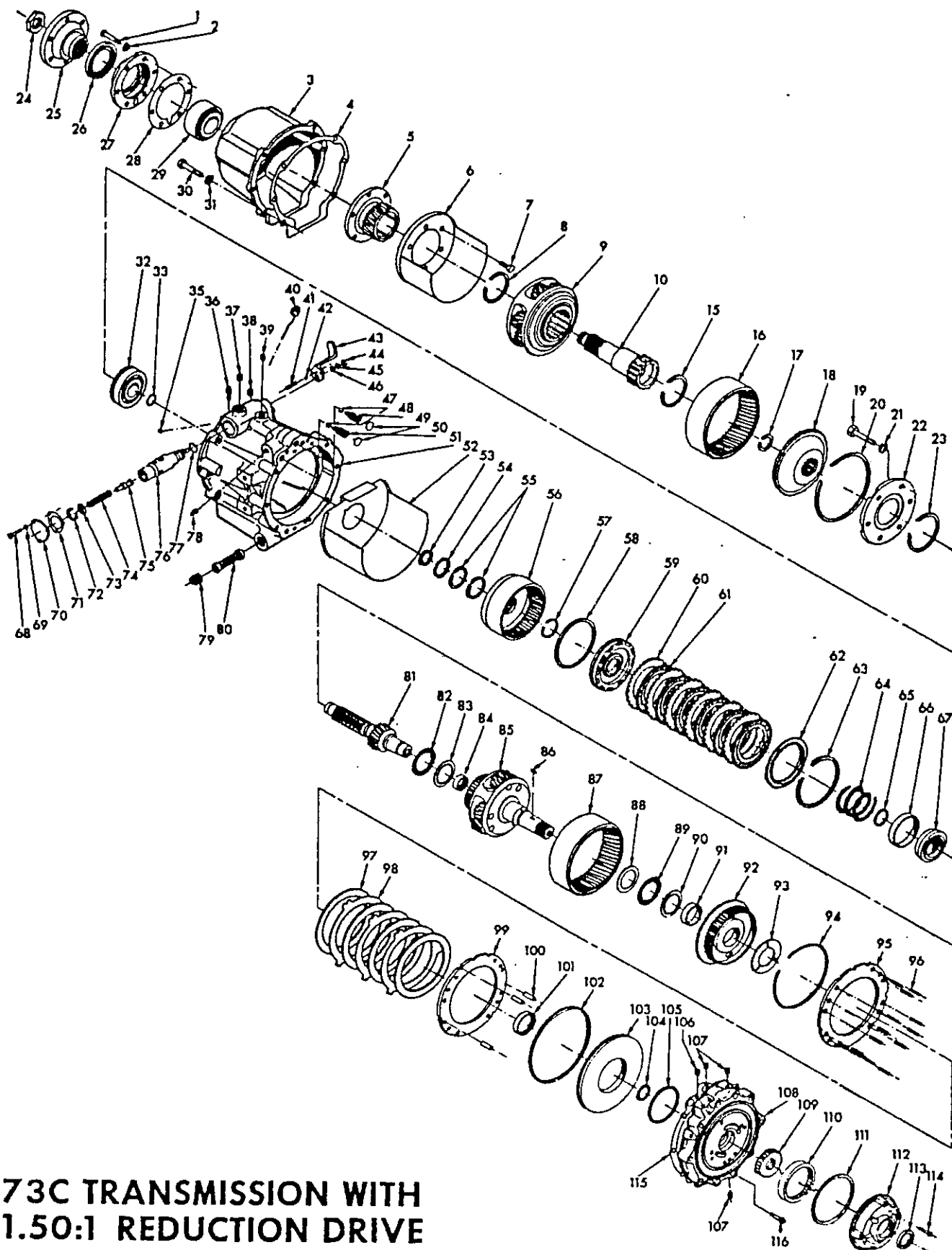
N.I. - NOT ILLUSTRATED

Warner Gear/Warner-Motive

General Offices, 1106 East Seymour Street, Muncie, Indiana 47302 Telephone: 317/284-8411

DIVISIONS OF BORG-WARNER CORPORATION

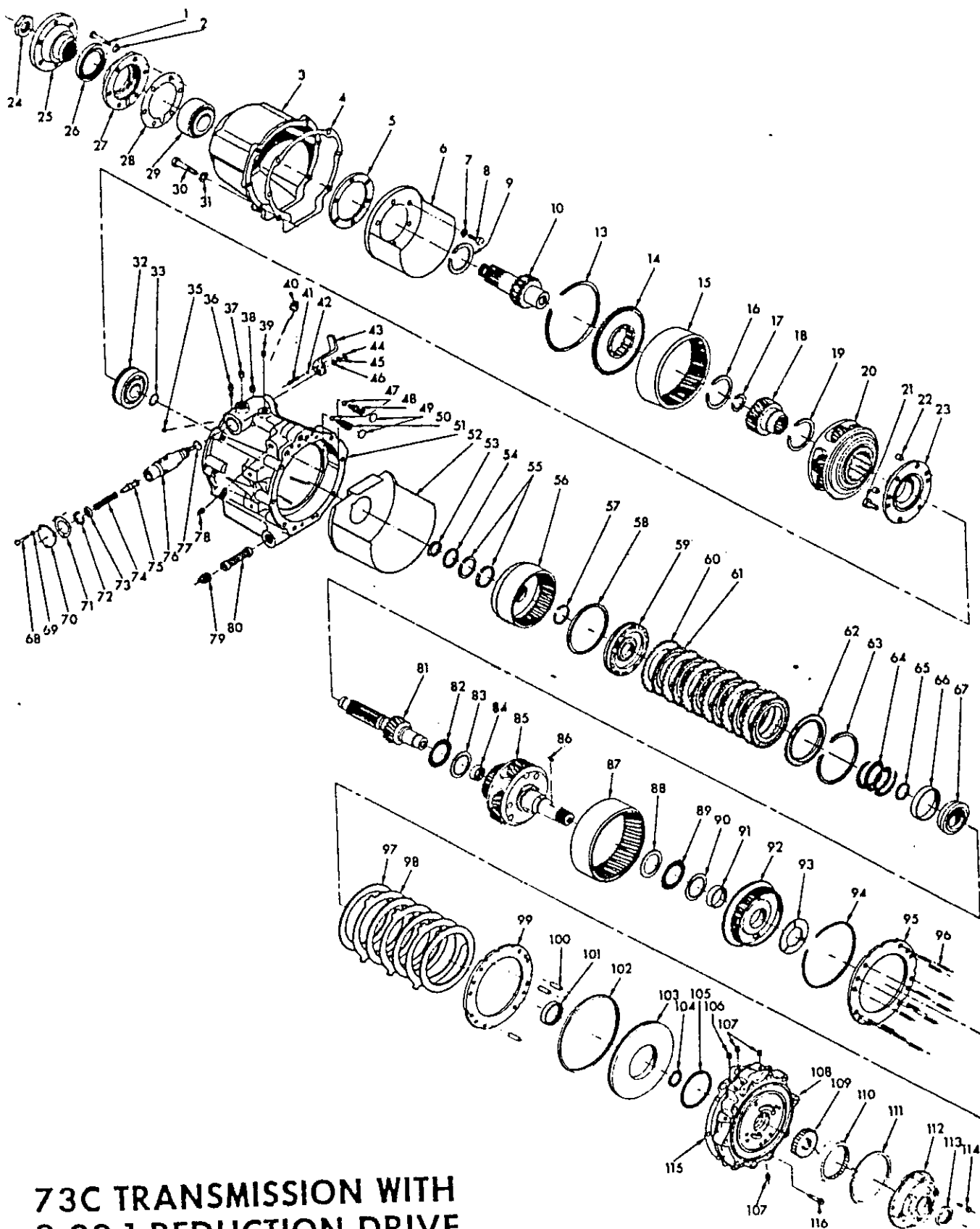




73C TRANSMISSION WITH 1.50:1 REDUCTION DRIVE

AS2-73C 1.50:1 PARTS LIST

INDEX NO.	W. G. PART NO.	DESCRIPTION	NO. REQ.	INDEX NO.	W. G. PART NO.	DESCRIPTION	NO. REC
1	179860	7/16-14 X 1-1/4 Hex Head Bolt	6	64	3-47A	Clutch Spring	1
2	103322	7/16 Lockwasher	6	65	3-44	Sealing Ring	1
3	L14-1	Reduction Unit Housing	1	66	Not Serviced	Bearing Sleeve Bushing (Order Assembly)	1
4	73C-146	Case Rear Gasket	1	67	73C-A12A	Bearing Sleeve & Bushing Assembly	1
5	L14-4	Reduction Sun Gear	1	68	179793	1/4-20 X 5/8 Hex Head Bolt	3
6	L14-140	Reduction Oil Baffle	1	69	103319	1/4 Lockwasher	3
7	477688	7/16-14 X 7/8 Hex Lock Bolt	6	70	71-4	Valve Cover	1
8	47658	Snap Ring	1	71	71-14	Valve Cover Gasket	1
9	L14-A150	Pinion Cage Assembly	1	N.I.	73C-A244 ①	Valve & Spring Assembly (Items 72,73,74,75,76)	1
10	L14-2	Reduction Output Shaft	1	72	4821	Snap Ring	1
16	47658	Snap Ring	1	73	71-246	Valve Spring Retainer	1
16	73C-6	Reduction Ring Gear	1	74	5G-246	Valve Spring	1
17	4746	Snap Ring	1	75	73C-243	Pressure Regulator Valve	1
18	L14-16	Reduction Ring Gear Hub	1	76	73C-244	Forward & Reverse Gear Transmission Valve	1
19	179857	7/16-14 X 7/8 Hex Head Bolt	6	77	4804H	"O" Ring	1
20	4822A	Ring Gear Snap Ring	1	78	444864	3/8 Pipe Plug	1
21	114607	7/16 Lockwasher	6	79	444592	3/4 Pipe Plug	1
22	L14-8	Bearing Retainer	1	80	71C-A98A	Oil Strainer Assembly	1
23	4745E	Bearing Snap Ring	1	81	73C-1A2E ①	Output Shaft & Sleeve Assembly	1
24	4775T	Main Shaft Nut	1	82	4830D ①	Needle Bearing	1
25	4914	Coupling	1	83	4832B ①	Thrust Bearing Race	1
26	L14-140A ①	Oil Seal 1000-044-017	1	84	4840R	Needle Bearing	1
27	L14-7	Bearing Retainer	1	85	73C-1A16E ①	Input Shaft & Planet Carrier Assembly	1
28	73C-147	Bearing Retainer Gasket	1	86	4897A ①	Pump Drive Key	1
29	49208	Bearing	1	87	73C-6	Ring Gear	1
30	179861	7/16-14 X 1-3/8 Hex Head Bolt	6	88	4832A	Needle Thrust Bearing Race	1
31	103322	7/16 Lockwasher	6	89	4830D	Needle Bearing	1
32	B308AG	Bearing	1	90	4832B	Thrust Bearing Race	1
33	4804R	"O" Ring	1	91	Not Serviced	Ring Gear Hub Bushing	1
35	4572T	Plug	1	92	73C-A106A ①	Ring Gear Hub & Bushing Assembly	1
36	4740A	Breather Assembly	1	93	71C-15	Ring Gear Hub Thrust Washer	1
37	10-00-191-002	3/8 Plastic Plug	1	94	4822A	Ring Gear Snap Ring	1
38	444852	1/8 Pipe Plug	1	95	73C-71	Reverse Clutch Pressure Plate	1
39	0000444864	3/8 Pipe Plug	1	96	71-97	Pressure Plate Spring	2
40	71-2A195	Dipstick Assembly	1	97	72-A66B	Reverse Clutch Plate, Inner	4
41	71-42	Poppet Spring	1	98	72-176	Reverse Clutch Plate, Outer	3
42	453632	5/16 Steel Ball	1	99	73C-71	Reverse Clutch Pressure Plate	1
43	68C-79	Forward & Reverse Shift Lever	1	100	4622F	Dowel Pin	2
44	115729	5/16-24 Hex Nut	1	101	4840T	Needle Bearing	1
45	108579	5/16 Lockwasher	1	102	4805A	Sealing Ring	1
46	103340	Control Lever Washer	1	103	71-35	Reverse Clutch Piston	1
47	453595	7/16 Steel Ball	2	104	4806A	Sealing Ring	1
48	72M-273	Cooler Check Valve Spring	1	105	4804G	Sealing Ring	1
49	68C-268	Check Valve Spring Retainer	2	106	444858	1/4 Pipe Plug	1
50	68C-269	Check Valve Spring	1	107	444852	1/8 Pipe Plug	1
51	73C-1A ①	Forward & Reverse Transmission Case	1	108	73C-8	Transmission Adapter	1
52	73C-140	Oil Baffle	1	N.I.	71C-A60	Pump Assembly (Items 109, 110, 112, & 113)	1
53	73C-52A ①	"O" Ring Backing Plate	2	109	Not Serviced	Pump Drive Gear (Order Assembly)	1
54	3-34	"O" Ring	1	110	Not Serviced	Pump Driven Gear (Order Assembly)	1
55	4806R	Sealing Ring	1	111	3-61	Pump Gasket	1
56	73C-50A ①	Direct Clutch Cylinder	1	112	Not Serviced	Pump Housing (Order Assembly)	1
57	4559A	Snap Ring	1	113	71C-62A ①	Oil Seal Assembly	1
58	3-46	Sealing Ring	1	114	179822	5/16-18 X 1-1/2 Hex Head Bolt	4
59	6-A45 ①	Clutch Piston & Ball Assembly	1		179821 ①	5/16-18 X 1-3/8 Hex Head Bolt	4
60	3-65 ①	Clutch Plate (steel)	8	115	73C-144	Case & Adapter Gasket	1
61	5C-A66A ①	Clutch Inner Plate Assembly	6	N.I.	4636KR	Name Plate, For Service	1
62	5L-67	Clutch Pressure Plate	1	N.I.	145370	Drive Screw	2
63	4751	Snap Ring	1	116	4911	3/8-16 X 1-1/4 Cap Screw	4

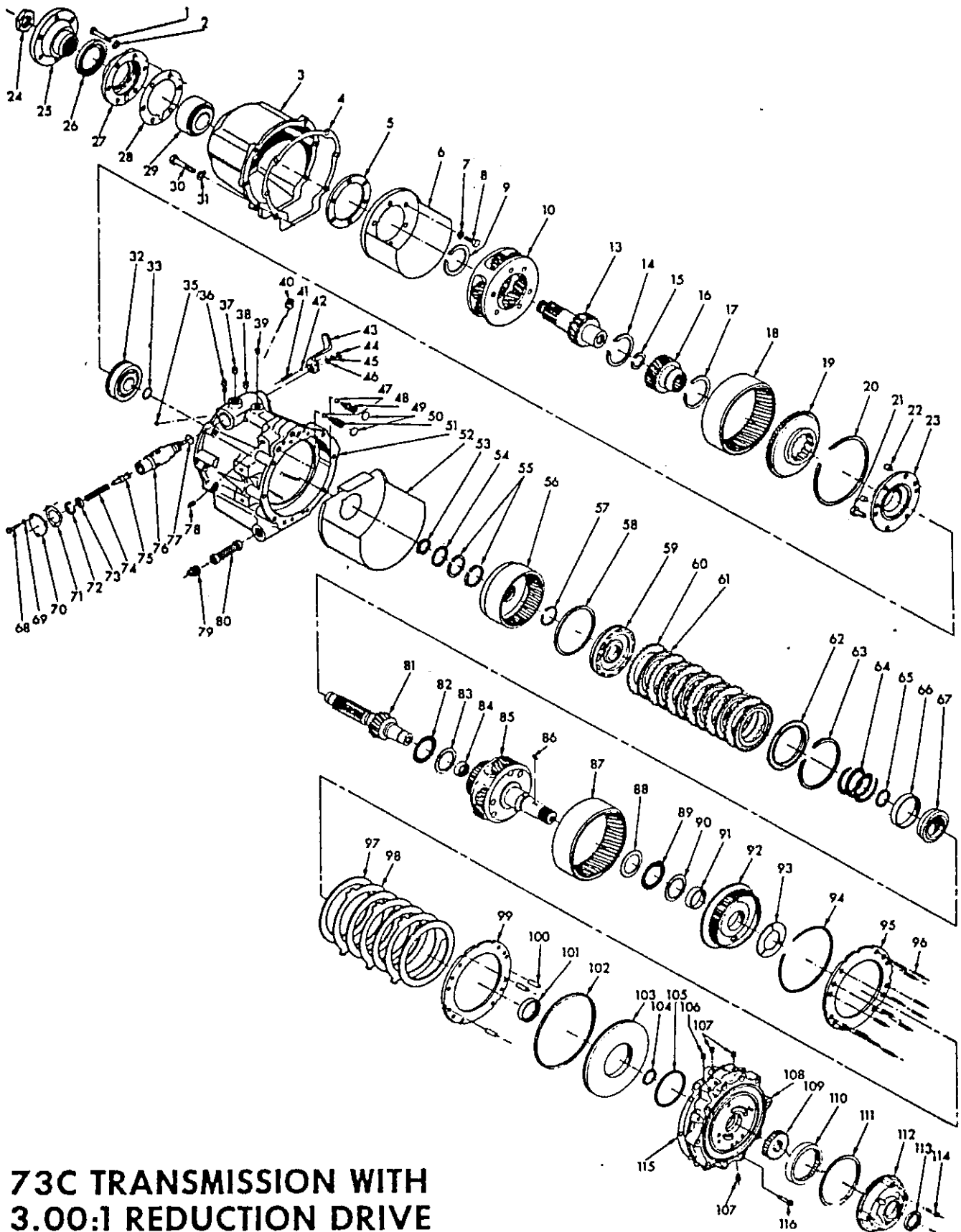


73C TRANSMISSION WITH 2.00:1 REDUCTION DRIVE

AS7-73C 2.00:1 PARTS LIST

INDEX NO.	W. G. PART NO.	DESCRIPTION	NO. REQ.	INDEX NO.	W. G. PART NO.	DESCRIPTION	NO. REQ.
1	179860	7/16-14 X 1-1/4 Hex Head Bolt	6	62	5L-67	Clutch Pressure Plate	1
2	103322	7/16 Lockwasher	6	63	4751	Snap Ring	1
3	L14-1	Reduction Unit Housing	1	64	3-47A	Clutch Spring	1
4	73C-148	Case Rear Gasket	1	65	3-44	Sealing Ring	1
5	L17-141	Oil Baffle Spacer	1	66	Not Serviced	Bearing Sleeve Bushing (Order Assembly)	1
6	L14-140	Reduction Oil Baffle	1	67	73C-A12A	Bearing Sleeve & Bushing Assembly	1
7	114807	7/16 Lockwasher	5	68	179793	1/4-20 X 5/8 Hex Head Bolt	3
8	179857	7/16-14 X 7/8 Hex Head Bolt	5	69	103319	1/4 Lockwasher	3
9	47658	Snap Ring	1	70	71-4	Valve Cover	1
10	L17-2	Reduction Output Shaft	1	71	71-14	Valve Cover Gasket	1
13	4822A	Ring Gear Snap Ring	1	N.I.	73C-A244 ①	Valve & Spring Assembly (Items 72,73,74,75,76)	1
14	L17-16	Reduction Ring Gear Hub	1	72	4821	Snap Ring	1
16	73C-6	Reduction Ring Gear	1	73	71-246	Valve Spring Retainer	1
16	47658	Snap Ring	1	74	5G-246	Valve Spring	1
17	4746	Snap Ring	1	75	73C-243	Pressure Regulator Valve	1
18	L17-4	Reduction Sun Gear	1	76	73C-244	Forward & Reverse Gear Transmission Valve	1
19	47658	Snap Ring	1	77	4804H	"O" Ring	1
20	L14-A150	Pinion Cage Assembly	1	78	444864	3/8 Pipe Plug	1
21	477688	7/16-14 X 7/8 Hex Lock Bolt	6	79	444592	3/4 Pipe Plug	1
22	141283	Dowel Pin	2	80	71C-A98A	Oil Strainer Assembly	1
23	L17-8A	Bearing Retainer	1	81	73C-1A2E ②	Output Shaft & Sleeve Assembly	1
24	4775T	Main Shaft Nut	1	82	4830D ③	Needle Bearing	1
25	4914	Coupling	1	83	4832B ④	Thrust Bearing Race	1
26	L14-110A ⑤	Oil Seal 1000-044-017	1	84	4840R	Needle Bearing	1
27	L14-7	Bearing Retainer	1	85	73C-1A16E ⑤	Input Shaft & Planet Carrier Assembly	1
28	73C-147	Bearing Retainer Gasket	1	86	4897A ⑥	Pump Drive Key	1
29	49208	Bearing	1	87	73C-6	Ring Gear	1
30	179861	7/16-14 X 1-3/8 Hex Head Bolt	6	88	4832A	Needle Thrust Bearing Race	1
31	103322	7/16 Lockwasher	6	89	4830D	Needle Bearing	1
32	B308AG	Bearing	1	90	4832B	Thrust Bearing Race	1
33	4804R	"O" Ring	1	91	Not Serviced	Ring Gear Hub Bushing (Order Assembly)	1
35	4572T	Plug	1	92	73C-A106A ⑦	Ring Gear Hub & Bushing Assembly	1
36	4740A	Breather Assembly	1	93	71C-15	Ring Gear Hub Thrust Washer	1
37	10-00-191-002	3/8 Plastic Plug	1	94	4822A	Ring Gear Snap Ring	1
38	444852	1/8 Pipe Plug	1	95	73C-71	Reverse Clutch Pressure Plate	1
39	444864	3/8 Pipe Plug	1	96	71-97	Pressure Plate Spring	12
40	71-2A195	Dipstick Assembly	1	97	72-A66B	Reverse Clutch Plate, Inner	4
41	71-42	Pooper Spring	1	98	72-176	Reverse Clutch Plate, Outer	3
42	453632	5/16 Steel Ball	1	99	73C-71	Reverse Clutch Pressure Plate	1
43	88C-79	Forward & Reverse Shift Lever	1	100	4622F	Dowel Pin	3
44	115729	5/16-24 Hex Nut	1	101	4840T	Needle Bearing	1
45	108579	5/16 Lockwasher	1	102	4805A	Sealing Ring	1
46	103340	Control Lever Washer	1	103	71-35	Reverse Clutch Piston	1
47	453595	7/16 Steel Ball	2	104	4806A	Sealing Ring	1
48	72M-273	Cooler Check Valve Spring	1	105	4804G	Sealing Ring	1
49	68C-268	Check Valve Spring Retainer	2	106	444858	1/4 Pipe Plug	1
50	68C-269	Check Valve Spring	1	107	444852	1/8 Pipe Plug	1
51	73C-1A ②	Forward & Reverse Transmission Case	1	108	73C-8	Transmission Adapter	1
52	73C-140	Oil Baffle	1	N.I.	71C-A60	Pump Assembly (Items 109,110,112 & 113)	1
53	73C-52A ③	"O" Ring Backing Plate	2	109	Not Serviced	Pump Drive Gear (Order Assembly)	1
54	3-34	"O" Ring	1	110	Not Serviced	Pump Driven Gear (Order Assembly)	1
55	4806R	Sealing Ring	1	111	3-61	Front Pump Gasket	1
56	73C-50A ④	Direct Clutch Cylinder	1	112	Not Serviced	Front Pump Housing (Order Assembly)	1
57	4559A	Snap Ring	1	113	71C-62A ⑧	Oil Seal Assembly	1
58	3-46	Sealing Ring	1	114	179822	5/16-18 X 1-1/2 Hex Head Bolt	4
59	6-A45 ①	Clutch Piston & Ball Assembly	1	115	179821 ⑨	5/16-18 X 1-3/8 Hex Head Bolt	4
60	3-65 ①	Clutch Plate (Steel)	6	N.I.	73C-144	Case & Adapter Gasket	1
61	5C-A66A ②	Clutch Inner Plate Assembly	6	N.I.	145370	Service Name Plate	1
				116	4911	Drive Screw	1
						3/8-16 X 1-1/4 Cap Screw	4

NOTES 1-15: SEE PAGE



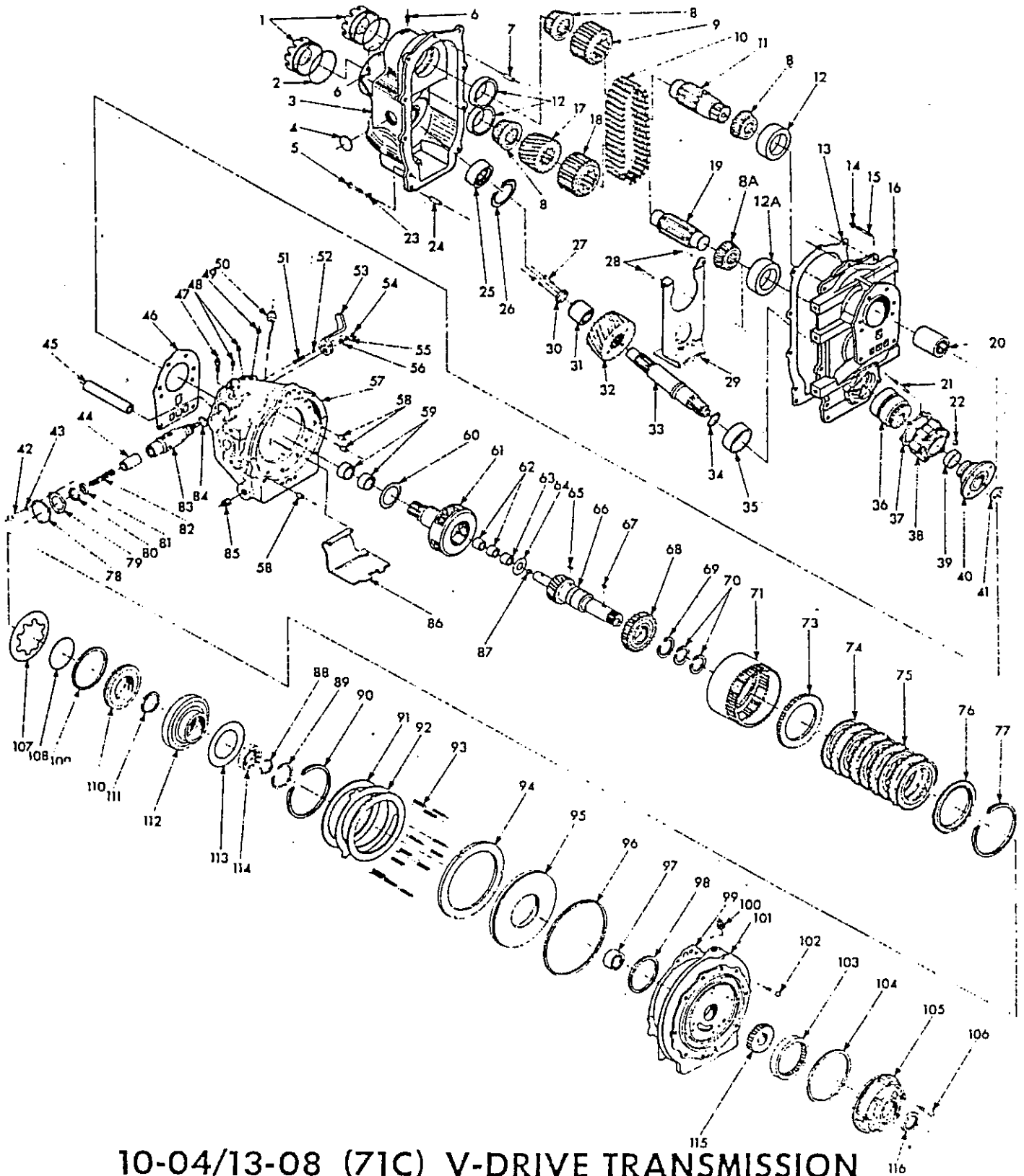
73C TRANSMISSION WITH 3.00:1 REDUCTION DRIVE

AS5-73C 3.00:1 PARTS LIST

INDEX NO.	W. G. PART NO.	DESCRIPTION	NO. REQ.	INDEX NO.	W. G. PART NO.	DESCRIPTION	NO. REQ.
1	179860	7/16-14 X 1-1/4 Hex Head Bolt	6	67	73C-A12A	Bearing Sleeve & Bushing Assembly	1
2	103322	7/16 Lockwasher	6	68	179793	1/4-20 X 5/8 Hex Head Bolt	1
3	L14-1	Reduction Unit Housing	1	69	103319	1/4 Lockwasher	1
4	73C-148	Case Rear Gasket	1	70	71-4	Valve Cover	1
5	L17-141	Oil Baffle Spacer	1	71	71-14	Valve Cover Gasket	1
6	L14-140	Reduction Oil Baffle	1	N.I.	73C-A244	Valve & Spring Assembly (Item 72,73,74,75,76)	1
7	114507	7/16 Lockwasher	5	72	4821	Snap Ring	1
8	179857	7/16-14 X 7/8 Hex Head Bolt	5	73	71-246	Valve Spring Retainer	1
9	47658	Snap Ring	1	74	5G-246	Valve Spring	1
10	L14-A150	Pinion Cage Assembly	1	75	73C-243	Pressure Regulator Valve	1
13	L17-2	Reduction Output Shaft	1	76	73C-244 ①	Forward & Reverse Gear Transmission Valve	1
14	47658	Snap Ring	1	77	4804H	"O" Ring	1
15	4746	Snap Ring	1	78	444864	3/8 Pipe Plug	2
16	L17-4A	Reduction Sun Gear	1	79	444592	3/4 Pipe Plug	1
17	47658	Snap Ring	1	80	71C-A98A	Oil Strainer Assembly	1
18	73C-6	Reduction Ring Gear	1	81	73C-1A2E ①	Output Shaft & Sleeve Assembly	1
19	L17-16	Reduction Ring Gear Hub	1	82	4830D ①	Needle Bearing	1
20	4822A	Ring Gear Snap Ring	1	83	48328 ①	Thrust Bearing Race	1
21	47768B	7/16-14 X 7/8 Hex Lock Bolt	6	84	4840R	Needle Bearing	1
22	141283	Dowel Pin	2	85	73C-1A16E ①	Input Shaft & Planet Carrier Assembly	1
23	L17-8A	Bearing Retainer	1	86	4897A ①	Pump Drive Key	1
24	4775T	Main Shaft Nut	1	87	73C-6	Ring Gear	1
25	4914	Coupling	1	88	4832A	Needle Thrust Bearing Race	1
26	414-440A ①	Oil Seal 1000-044-017	1	89	4830D	Needle Bearing	1
27	L14-7	Bearing Retainer	1	90	48328	Thrust Bearing Race	1
28	73C-147	Bearing Retainer Gasket	1	91	Not Serviced	Ring Gear Hub Bushing (Order Assembly)	1
29	4920B	Bearing	1	92	73C-A106A ①	Ring Gear Hub & Bushing Assembly	1
30	179861	7/16-14 X 1-3/8 Hex Head Bolt	6	93	71C-15	Ring Gear Hub Thrust Washer	1
31	103322	7/16 Lockwasher	6	94	4822A	Ring Gear Snap Ring	1
32	8308AG	Bearing	1	95	73C-71	Reverse Clutch Pressure Plate	1
33	4804R	"O" Ring	1	96	71-97	Pressure Plate Spring	12
35	4572T	Plug	1	97	72-A66B	Reverse Clutch Plate, Inner	4
36	4740A	Breather Assembly	1	98	72-176	Reverse Clutch Plate, Outer	3
37	10-00-191-002	3/8 Plastic Plug	1	99	73C-71	Reverse Clutch Pressure Plate	1
38	444852	1/8 Pipe Plug	1	100	4622F	Dowel Pin	3
39	444864	3/8 Pipe Plug	1	101	4840T	Needle Bearing	1
40	71-2A195	Dipstick Assembly	1	102	4805A	Sealing Ring	1
41	71-42	Poppet Spring	1	103	71-35	Reverse Clutch Piston	1
42	453632	5/16 Steel Ball	1	104	4806A	Sealing Ring	1
43	68C-79	Forward & Reverse Shift Lever	1	105	4804G	Sealing Ring	1
44	115729	5/16-24 Hex Nut	1	106	444858	1/4 Pipe Plug	1
45	108579	5/16 Lockwasher	1	107	444852	1/8 Pipe Plug	3
46	103340	Control Lever Washer	1	108	73C-8	Transmission Adapter	1
47	453595	7/16 Steel Ball	2	N.I.	71C-A60	Pump Assembly (Items 109,110,112, & 113)	1
48	72M-273	Cooler Check Valve Spring	1	109	Not Serviced	Pump Drive Gear (Order Assembly)	1
49	68C-268	Check Valve Spring Retainer	2	110	Not Serviced	Pump Driven Gear (Order Assembly)	1
50	68C-269	Check Valve Spring	1	111	3-61	Pump Gasket	1
51	73C-1A ②	Forward & Reverse Transmission Case	1	112	Not Serviced	Pump Housing (Order Assembly)	1
52	73C-140	Oil Baffle	1	113	71C-62A ②	Oil Seal Assembly	1
53	73C-52A ②	"O" Ring Backing Plate	2	114	179822	5/16-18 X 1-1/2 Hex Head Bolt	4
54	3-34	"O" Ring	1	115	179821 ②	5/16-18 X 1-3/8 Hex Head Bolt	4
55	4806R	Sealing Ring	2	116	73C-144	Case & Adapter Gasket	1
56	73C-50A ④	Direct Clutch Cylinder	1	N.I.	4636KR	Service Name Plate	1
57	4559A	Snap Ring	1	N.I.	145370	Drive Screw	2
58	3-46	Sealing Ring	1	116	4911	3/8-16 X 1-1/4 Cap Screw	4
59	8-A45 ①	Clutch Piston & Ball Assembly	1				
60	3-65 ①	Clutch Plate (Steel)	6				
61	5C-A66A ①	Clutch Inner Plate Assembly	6				
62	5L-67	Clutch Pressure Plate	1				
63	4751	Snap Ring	1				
64	3-47A	Clutch Spring	1				
65	3-44	Sealing Ring	1				
66	Not Serviced	Bearing Sleeve Bushing (Order Assembly)	1				

NOTES 1-15: SEE PAGE 18

2 1/2 INCH WIDE CHAIN

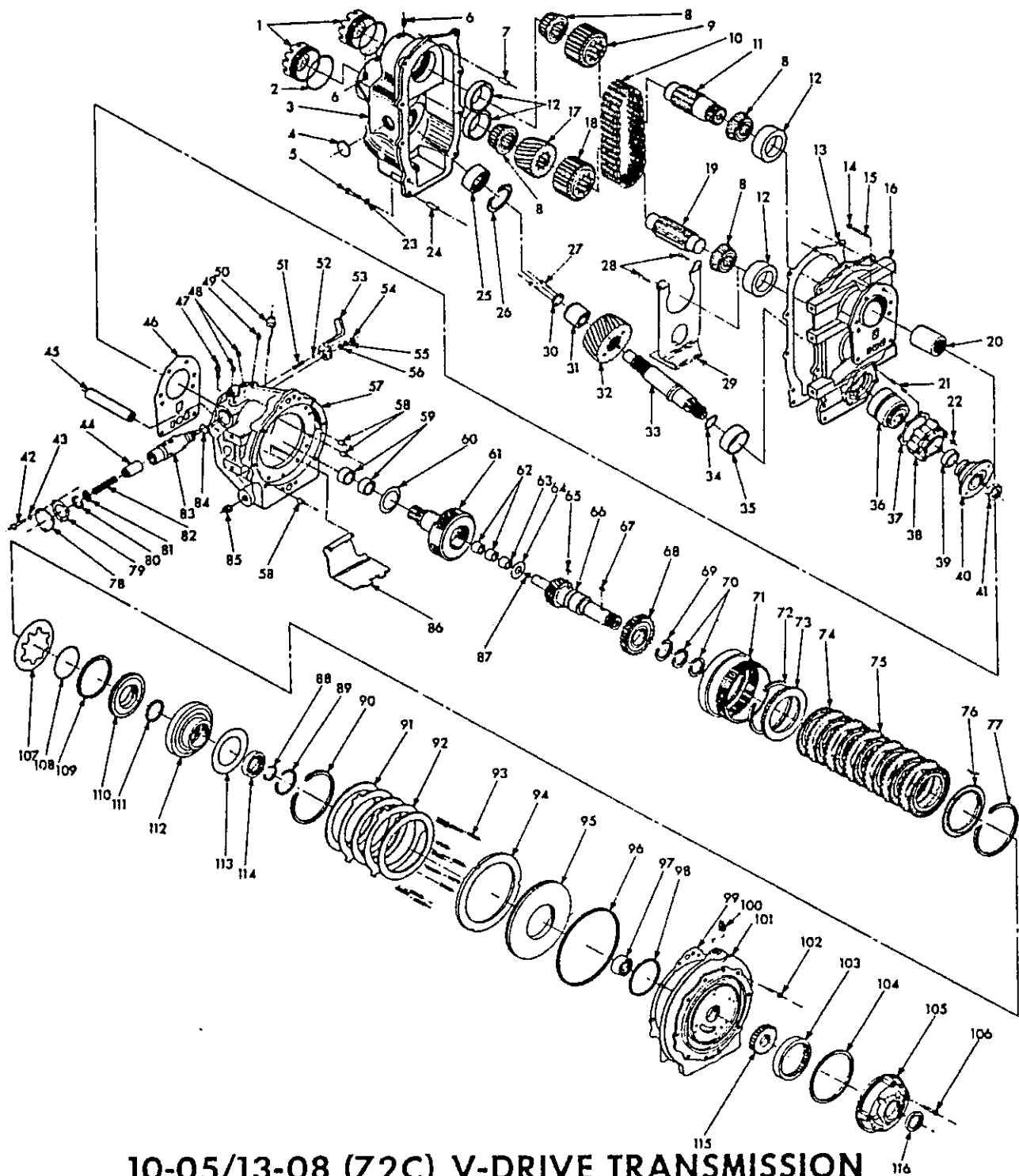


10-04/13-08 (71C) V-DRIVE TRANSMISSION

V-DRIVE PARTS LIST			ALL UNITS	GEAR DRIVE					CHAIN DRIVE					
for 2 1/2" wide chain drive units or gear drive units with spacer on input and intermediate shaft.				1.99:1.00	2.49:1.00	3.14:1.00	0.96:1.00	1.51:1.00	1.21:1.00	1.98:1.00	2.50:1.00	3.10:1.00	0.97:1.00	1.53:1.00
INDEX NO.	PART NAME	PART NO.												
1	Bearing Cap	13-08-027-003	2											
2	"O" Ring	10-00-141-235	2											
	Case & Cover Assembly	13-08-565-008		1				1		1			1	
		13-08-565-011			1	1	1		1		1	1	1	1
3	V-Drive Case Cover	Order Assembly												
4	Expansion Plug	10-00-113-004	1											
5	7/16-14 x 1-1/4 Hex Head Bolt	4853E	8											
6	3/16 x 9/16 Spring Pin	0009422345	2											
7	Taper Pin	0000100360	1											
8	Bearing Cone	10-00-133-002	3											
8A	Bearing Cone	10-00-133-004	1											
9	Sprocket (29 Teeth)	13-08-144-007								1				
	(33 Teeth)	13-08-144-008												1
	(25 Teeth)	13-08-144-009									1			
	(36 Teeth)	13-08-144-010												1
	(23 Teeth)	13-08-144-011										1		
	(41 Teeth)	13-08-144-012											1	
	Gear (34 Teeth)	13-08-070-001	1											
	(39 Teeth)	13-08-070-002						1						
	(30 Teeth)	13-08-070-003			1									
	(43 Teeth)	13-08-070-004							1					
	(26 Teeth)	13-08-070-005				1								
	(47 Teeth)	13-08-070-006					1							
10	Drive Chain	13-08-143-003								1	1			1
		13-08-143-004										1	1	
11	Input Shaft	13-08-189-002	1											
12	Bearing Cup	10-00-133-001	3											
12A	Bearing Cup	10-00-133-003	1											
13	V-Drive Gasket	13-08-045-001	1											
14	7/16-20 Hex Lock Nut	0009419506	6											
15	Case Stud	10-00-146-001	6											
16	V-Drive Case	Order Assembly												
17	Bevel Gear (19 Teeth)	13-08-030-001	1											
18	Sprocket (29 Teeth)	13-08-144-007												1
	(33 Teeth)	13-08-144-008								1				
	(25 Teeth)	13-08-144-009												1
	(36 Teeth)	13-08-144-010									1			
	(23 Teeth)	13-08-144-011											1	
	(41 Teeth)	13-08-144-012										1		
	Gear (34 Teeth)	13-08-070-001						1						
	(39 Teeth)	13-08-070-002		1										
	(30 Teeth)	13-08-070-003							1					
	(43 Teeth)	13-08-070-004			1									
	(26 Teeth)	13-08-070-005					1							
	(47 Teeth)	13-08-070-006				1								
19	Intermediate Shaft	13-08-067-002	1											
20	Coupling	13-08-089-001	1											
21	Stud	10-00-146-003	6											
22	7/16-20 Hex Nut	0009419506	6											
	7/16-14 x 2 Hex Head Bolt	0000179866	6											
23	7/16 Lockwasher	0000103322	14											
24	Taper Pin	0000100360	1											
25	Roller Bearing	10-00-134-001	1											
26	Snap Ring	T86-7-1/2	1											
27	3/8-24 x 7/8 Cap Screw	10-00-183-007	2											
28	1/4-20 x 1/2 Machine Screw Assembly	0000188448	2											
29	Oil Baffle	13-08-036-001		1	1	1	1	1	1	1				
	Chain Baffle	13-08-036-003									1	1	1	1
30	Keeper	13-08-014-001	1											
31	Bearing Inner Race-Part of Item 25	Order Assembly												
32	Bevel Gear (33 Teeth)	13-08-030-002	1											
33	Output Shaft	13-08-171-001	1											
34	Shim Selective	13-08-037-002	1											
		13-08-037-008	1											
		13-08-037-009	1											
35	Oil Baffle	13-08-036-002	1											
36	Bearing Assembly	4920	1											
37	Gasket	13-08-045-003	1											
38	Bearing Cap	13-08-027-001	1											
39	Oil Seal Assembly	71C-110	1											
40	Coupling	4912	1											
41	Output Shaft Nut	4775Q	1											
N.I.	Gear Spacer	10-08-053-001		2	2	2	2	2	2	2				

N.I. - NOT ILLUSTRATED

FORM 1100 / 4-77
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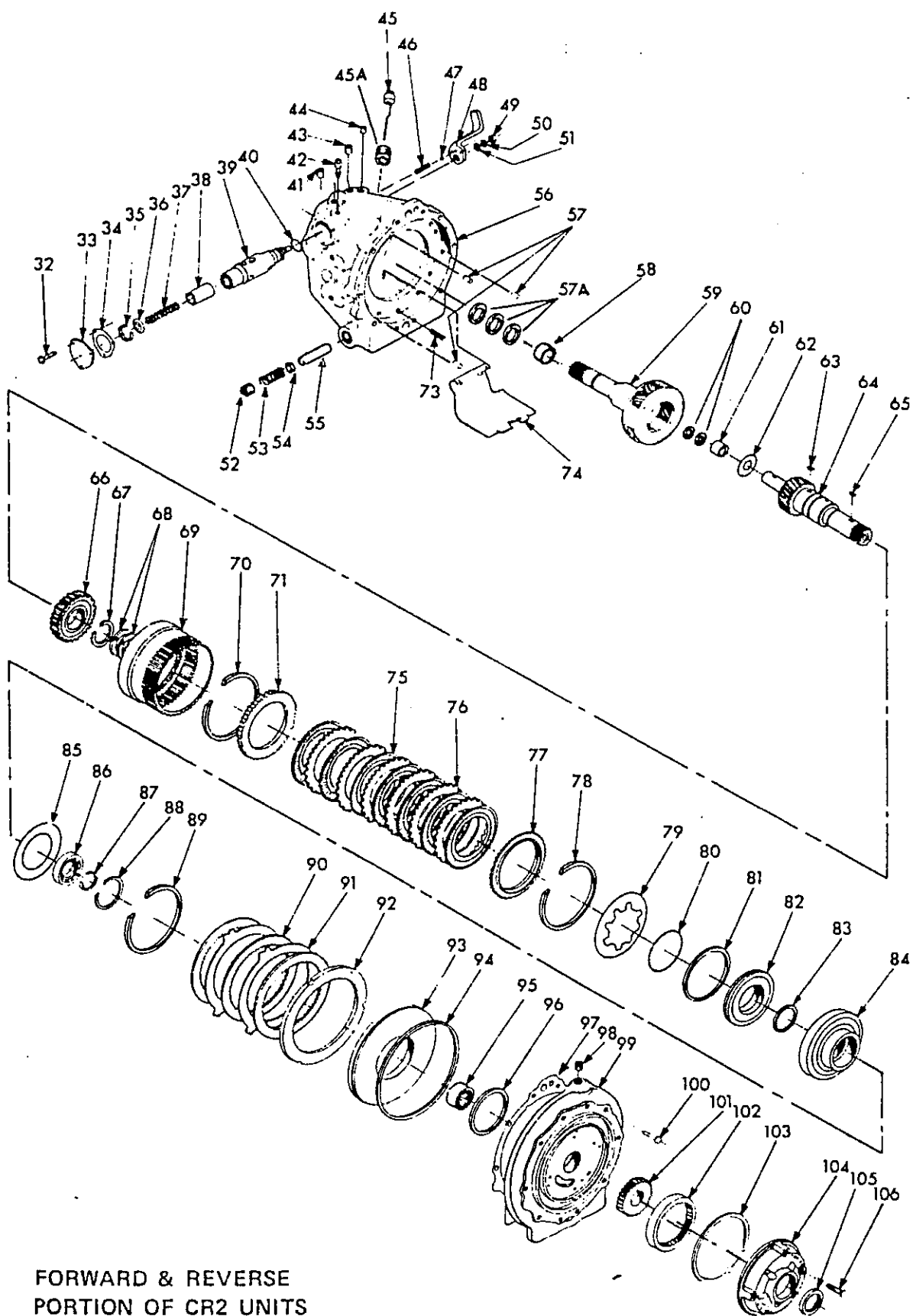


10-05/13-08 (72C) V-DRIVE TRANSMISSION

10-04 & 10-05 FORWARD & REVERSE TRANSMISSION PARTS LIST

INDEX NO.	W.G. PART NO.	DESCRIPTION	NO. REQ.	INDEX NO.	W.G. PART NO.	DESCRIPTION	NO. REQ.
42	0000179793	1/4-20 x 5/8 Hex Head Bolt	3	83	71-244A	Forward & Rev. Gear Trans. Valve	1
43	0000179791	1/4-20 x 1/2 Hex Head Bolt	3	84	4804H	"O" Ring	1
	0000103319	1/4 Lockwasher—not used with 1/2 bolt		85	0000444581	3/8-18 Pipe Plug	1
44	71-243	Pressure Regulator Valve	1	86	71-140	Baffle-No Longer Used	1
45	10-04-034-001	Suction Tube (10-04 Only)	1	87	4572D	3/8 Taper Plug	1
	10-05-034-001	Suction Tube (10-05 Only)	1	88	4734	Snap Ring (10-04 Only)	1
46	13-08-045-002	Transmission to V-Drive Gasket	1		4766B	Snap Ring (10-05 Only)	1
47	A4740G	Breather Assembly	1	89	R6A-7-1/2	Snap Ring (10-04 Only)	1
48	0000444866	3/8-18 Dryseal Plug	1		4559A	Snap Ring (10-05 Only)	1
49	0000444687	1/8-27 Dryseal Plug	1	90	4822	Ring Gear Snap Ring	1
50	71-2A195	Dipstick Assembly	1	91	72-A66B	Rev. Clutch Plate Ass'y. (10-04 Only)	2
N.I.	10-06-659-001	Dipstick	1			(10-05 Only)	3
N.I.	10-04-034-002	Tube	1	92	72-176	Outer Clutch Plate (10-04 Only)	1
51	71-42	Poppet Spring	1			(10-05 Only)	2
52	0000453632	5/16 Steel Ball	1	93	71-97	Pressure Plate Spring	12
53	71-79B	Forward & Reverse Shift Lever	1	94	71-71	Reverse Clutch Pressure Plate	1
54	0000115729	5/16-24 Hex Nut	1	95	71-35	Reverse Clutch Piston	1
55	0000108579	5/16 Lockwasher	1	96	4805A	Sealing Ring	1
56	0000103340	Control Lever Washer	1	97	4840D	Needle Bearing	1
57	10-04-565-003	Trans. Case & Bushing Ass'y. (10-04 Only)	1	98	4804G	Sealing Ring	1
	10-05-565-003	Trans. Case & Bushing Ass'y. (10-05 Only)	1	99	71-144B	Case & Adapter Gasket	1
58	R6-177	Dowel Pin (10-04 Only)	3	100	0000444858	1/4 Pipe Plug	1
	4622E	Dowel Pin (10-05 Only)	3	101	71C-8	Forward & Reverse Adapter	1
59	Kit A4867VV	Output Shaft Bushing (Two in Kit)	1	102	4911	3/8-16 x 1-1/4 Cap Screw	4
60	71-159	Thrust Washer	1	N.I.	71C-A60	Pump Ass'y. (Includes items 103, 105 & 116)	1
61	71-1A2A	Pinion Cage & Output Shaft Assembly (10-04 Only)	1	103	Order Ass'y.	Pump Driven Gear	1
	72-1A2A	Pinion Cage & Output Shaft Assembly (10-05 Only)	1	104	3-61	Pump Gasket	1
62	Kit A4867DD	Main Drive Gear Bushing	2	105	Order Ass'y.	Front Pump Housing	1
63		Main Drive Gear Bushing		106	10-00-183-021	5/16-18 x 1-3/8 Hex Head Bolt	4
64	71-17	Clutch Hub Thrust Washer	1	107	3-37	Clutch Spring	1
65	0000218211	Woodruff Key (10-04 Only)	1	108	5C-33	Clutch Spring Bearing Ring	1
	0000124553	Woodruff Key (10-05 Only)	1	109	5L-36	Clutch Ring	1
66	71C-3A16	Drive Gear & Plug Assembly (Includes 87)(10-04 Only)	1	110	71-45	Forward Clutch Piston	1
	72C-2A16	Drive Gear & Plug Assembly (Includes 87)(10-05 Only)	1	111	5M-122	Sealing Ring	1
67	4873	Woodruff Key	1	112	71-70	Forward Clutch Cylinder (10-04 Only)	1
68	71-40	Forward Clutch Hub (10-04 Only)	1		72-70	Forward Clutch Cylinder (10-05 Only)	1
	72-40	Forward Clutch Hub (10-05 Only)	1	113	71-15B	Thrust Washer	1
69	4495	Snap Ring	1	114	8107A	Bearing (10-04 Only)	1
70	4806J	Sealing Ring	2		8108A	Bearing (10-05 Only)	1
71	71-6	Ring Gear (10-04 Only)	1	115	Order Ass'y.	Pump Drive Gear	1
	72-6	Ring Gear (10-05 Only)	1	116	71C-62A	Oil Seal Assembly	1
72		Snap Ring, Selective					
	4768	.050-.054 Green	10-05 Only				
	4768A	.074-.078 Orange					
	4768B	.096-.100 White					
73	5L-67	Clutch Pressure Plate	1				
74	5C-A66A	Clutch Inner Ass'y. (10-04 Only)	5				
		(10-05 Only)	7				
75	3-176	Clutch Plate (10-04 Only)	4				
		(10-05 Only)	6				
76	5C-175A	Clutch Pressure Plate	1				
77	4755	Clutch Spring Snap Ring	1				
78	71-4	Valve Cover	1				
79	71-14	Valve Cover Gasket	1				
80	4821	Snap Ring	1				
81	71-246	Valve Spring Retainer	1				
82	71-242	Valve Spring	1				
N.I.	71-A244A	Forward & Reverse Trans. Ass'y.	1				

N.I.—NOT ILLUSTRATED



FORWARD & REVERSE
PORTION OF CR2 UNITS

Fig. 3

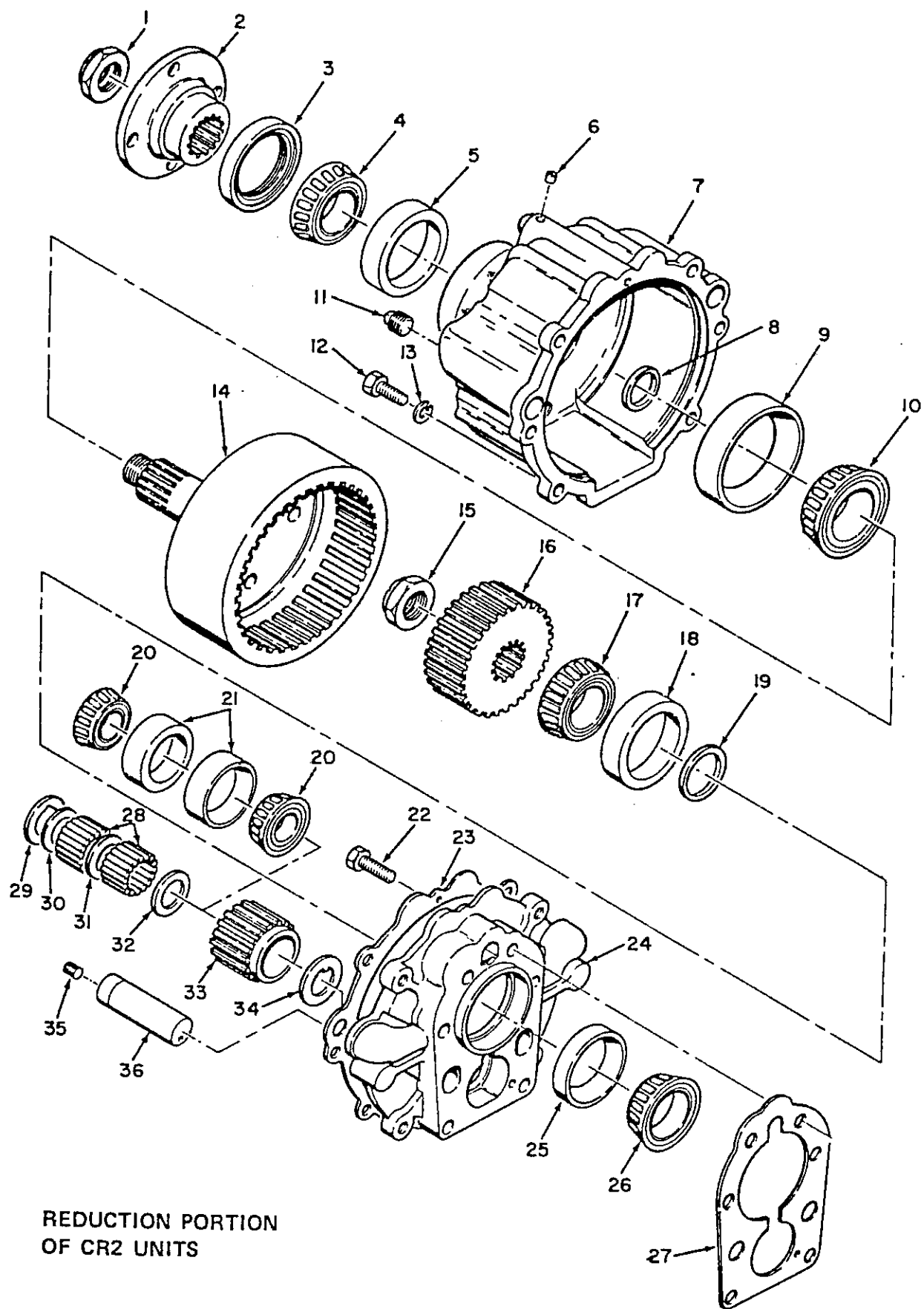
**PARTS LIST FOR FORWARD & REVERSE
PORTION OF CR2 UNITS**

INDEX NO.	PART NUMBER	PART DESCRIPTION	NO. REQ.		INDEX NO.	PART NUMBER	PART DESCRIPTION	NO. REQ.	
			10-13 UNITS	10-14 UNITS				10-13 UNITS	10-14 UNITS
32	0000179791	1/4-20 x 5/8 Hex Head Bolt	3	3	78	4755	Clutch Spring Snap Ring (2)	1	1
33	71-4	Valve Cover	1	1	79	3-37	Clutch Spring	1	1
34	71-14	Valve Cover Gasket (1)	1	1	80	5C-33	Clutch Spring Bearing Ring	1	1
N1	10-05-739-001	Valve & Spring Assembly	1	1	81	5L-36	Sealing Ring (1)	1	1
35	4821	Snap Ring (2)	1	1	82	71-45	Forward Clutch Piston	1	1
36	71-246	Valve Spring Retainer	1	1	83	5M-122	"O" Ring (1)	1	1
37	72N-242	Valve Spring	1	1	84	71-70	Forward Clutch Cylinder	1	1
38	71-243	Pressure Reg. Valve	1	1		72-70	Forward Clutch Cylinder		1
39	10-05-239-001	Selector Valve	1	1	85	71-158	Thrust Washer	1	1
40	4804H	"O" Ring (1)	1	1	86	8107A	Annular Bearing	1	
41	N.S.S.*	Plastic Shipping Plug	1	1		8108A	Annular Bearing		1
42	A4740G	Breather	1	1	87	4559A	Snap Ring (2)		1
43	0000444866	3/8-16 Dryseal Plug	1	1		4734	Snap Ring (2)	1	
44	0000444687	1/8-27 Dryseal Plug	1	1	88	R6A-7-1/2	Snap Ring (2)	1	
45	10-13-559-001	Dipstick Assembly	1	1		4766B	Snap Ring (2)		1
45A	10-04-034-002	Dipstick Tube	1	1	89	4822	Ring Gear Snap Ring (2)	1	1
46	71-42	Poppet Spring (2)	1	1	90	72-A66B	Reverse Clutch Plate	2	3
47	0000453632	5/16 Steel Ball	1	1	91	72-176	Reverse Clutch Steel Plate	1	1
48	71-798	Shift Lever	1	1	92	71-71	Reverse Clutch Pressure Plate	1	1
49	0000115729	5/16-24 Hex Nut	1	1	93	71-35	Reverse Clutch Piston	1	1
50	0000108579	5/16 Lockwasher	1	1	94	4805A	Sealing Ring (1)	1	1
51	0000103340	Washer	1	1	95	4840D	Needle Bearing	1	1
52	4885B	Bushing	1	1	96	4804G	Sealing Ring (1)	1	1
53	5L-222	Spring	1	1	97	71-144B	Gasket (1)	1	1
54	35-143	Flat Washer	1	1	98	0000444860	1/4 Pipe Plug	1	1
55	72C-98	Pump Inlet Shield	1	1	99	71C-8	Forward & Reverse Adapter	1	1
56	10-13-565-003	Case & Magnet Assembly	1		NI	71C-A8	For. & Rev. Adapter & Needle Brg. Assy.	1	1
	10-14-565-002	Case & Magnet Assembly		1	100	4911	3/8-16 x 1-1/4 Cap Screw	4	4
57	R6-177	Dowel Pin	3		101	N.S.S.*	Pump Drive Gear	1	1
	4622E	Dowel Pin		3	102	N.S.S.*	Pump Driven Gear	1	1
57A	4806J	Sealing Ring (1)	3	3	103	3-61	Pump Gasket (1)	1	1
58	10-00-132-003	Needle Bearing	1	1	104	N.S.S.*	Pump Housing	1	1
59	10-13-659-003	Planet Carrier Assembly	1		105	10-00-044-014	Oil Seal (1)	1	1
	10-14-659-003	Planet Carrier Assembly		1	106	10-00-183-021	5/16-18 x 1-3/8 Hex Head Bolt	4	4
60	4806S	Sealing Ring (1)	2	2	NI	71C-A60	Pump Assembly	1	1
61	10-00-132-005	Needle Bearing	1	1					
62	71-17	Thrust Washer	1	1					
63	0000124553	Woodruff Key		1					
	0000218211	Woodruff Key	1						
N1	10-04-665-002	Sun Gear & Clutch Assembly	1						
NI	10-05-665-002	Sun Gear & Clutch Assembly		1					
	72-A6	Ring Gear & Clutch Assembly		1					
64	10-04-665-001	Drive Gear & Plug Assembly	1						
	10-05-665-001	Drive Gear & Plug Assembly		1					
65	4873	No. 9 Woodruff Key	1	1					
66	71-40	Forward Clutch Hub	1						
	72-40	Forward Clutch Hub		1					
67	4495	Snap Ring (2)	1	1					
68	4806J	Sealing Rings (1)	2	2					
69	72-6	Ring Gear		1					
	71-6	Ring Gear	1						
70	4768	Snap Ring - Selective (2)		2					
	4768A	Snap Ring - Selective (2)		1					
	4768B	Snap Ring - Selective (2)		1					
71	5L-67	Pressure Plate	1	1					
73	71-97	Pressure Plate Spring (2)	12	12					
74	71-140	Baffle	1	1					
75	5C-A66A	Clutch Inner Plate	5	7					
76	3-176	Clutch Outer Plate	4	6					
77	5C-175A	Pressure Plate	1	1					

*N.S.S. - NOT SERVICE SEPARATELY

(1) - THESE PARTS AVAILABLE GASKET & SEAL KIT NO. 10-13-410-001

(2) - THESE PARTS AVAILABLE SMALL PARTS KIT NO. 10-13-410-002



REDUCTION PORTION
OF CR2 UNITS

Fig. 4

PARTS LIST FOR REDUCTION OF CR2 UNITS

INDEX NO.	W.G. PART NO.	DESCRIPTION	NO. REQ.	INDEX NO.	W.G. PART NO.	DESCRIPTION	NO. REQ.
1	4775Q	Coupling Nut	1	20	10-00-133-012	Bearing Cone used in -006 units	2
2	10-00-031-001	Coupling	1		10-00-133-014	Bearing Cone used in -008 units	2
3	10-00-044-003	Oil Seal (2)	1	21	10-00-133-011	Bearing Cup used in -006 units	2
4	10-00-133-004	Bearing Cone	1		10-00-133-013	Bearing Cup used in -008 units	2
5	10-00-133-003	Bearing Cup	1	22	10-00-183-023	7/16-14 Hex. Soc. Head Screw	6
6	4572W	Plug	1	23	10-13-045-002	Gaskets (2)	1
7	10-13-565-002	Housing & Plug Assembly	1	24	10-13-172-001	Adapter for -002 units	1
8	10-13-053-002	Selective Spacer (.205 inch thick) (3)	1		10-13-172-002	Adapter for -001 & -009 units	1
	10-13-053-005	Selective Spacer (.207 inch thick)	1		10-13-172-003	Adapter for -004 units	1
	10-13-053-006	Selective Spacer (.209 inch thick)	1		10-13-172-004	Adapter for -003 & -010 units	1
	10-13-053-007	Selective Spacer (.211 inch thick)	1		10-13-172-005	Adapter for -006 units	1
	10-13-053-008	Selective Spacer (.213 inch thick)	1		10-13-172-006	Adapter for -005 & 011 units	1
	10-13-053-009	Selective Spacer (.214 inch thick)	1		10-13-172-007	Adapter for -008 units	1
	10-13-053-010	Selective Spacer (.216 inch thick)	1		10-13-172-008	Adapter for -007 & -012 units	1
	10-13-053-011	Selective Spacer (.218 inch thick)	1	25	10-00-133-015	Bearing Cup	1
	10-13-053-012	Selective Spacer (.220 inch thick)	1	26	10-00-133-016	Bearing Cone	1
9	10-13-133-005	Bearing Cup	1	27	10-13-045-001	Gasket (2)	1
10	10-13-133-006	Bearing Cone	1	28	10-00-131-003	Needle Roller (1)	1
11	0000444391	Pipe Plug	1	29	10-13-193-001	Thrust Washer - used in -002 units	1
12	0000179861	7/16-14 x 1-3/8 Hex Head Bolt	6		10-13-193-002	Thrust Washer - used in -004 units	1
13	0000103322	7/16 Lockwasher	6	30	10-13-053-003	Spacer - used in -002 units	1
14	10-13-171-001	Ring Gear & Output Shaft for -002, 4, 6, 8, 9, 10, 11 & 12 units	1	31	10-13-053-004	Spacer - used in -004 units	1
	10-13-171-002	Ring Gear & Output Shaft for -001, 3, 5 & 7 units	1		10-13-053-003	Spacer - used in -002 units	1
15	4775Q	1-20 Thin Hex Nut	1	32	10-13-053-003	Spacer - used in -002 units	1
16	10-13-070-001	Drive Gear for -001 units 50 teeth 2 grooves	1		10-13-053-004	Spacer - used in -004 units	1
	10-13-070-002	Drive Gear for -002 units 50 teeth 1 groove	1	33	10-13-084-001	Idler Gear - used in -002 units	1
	10-13-070-003	Drive Gear for -003 units 39 teeth 2 grooves	1		10-13-084-002	Idler Gear - used in -004 units	1
	10-13-070-004	Drive Gear for -004 units 39 teeth 1 groove	1		10-13-084-003	Idler Gear - used in -006 units	1
	10-13-070-005	Drive Gear for -005 units 32 teeth 2 grooves	1		10-13-084-004	Idler Gear - used in -008 units	1
	10-13-070-006	Drive Gear for -006 units 32 teeth 1 groove	1	34	10-13-193-001	Thrust Washer - used in -002 units	1
	10-13-070-007	Drive Gear for -007 units 27 teeth 2 grooves	1		10-13-193-002	Thrust Washer - used in -004 units	1
	10-13-070-008	Drive Gear for -008 units 27 teeth 1 groove	1		10-13-037-005	Selective Spacer (.066 inch thick) (3)	1
	10-13-070-009	Drive Gear for -009 units 50 teeth 3 grooves	1		10-13-037-006	Selective Spacer (.068 inch thick)	1
	10-13-070-010	Drive Gear for -010 units 39 teeth 3 grooves	1		10-13-037-007	Selective Spacer (.070 inch thick)	1
	10-13-070-011	Drive Gear for -011 units 32 teeth 3 grooves	1		10-13-037-008	Selective Spacer (.072 inch thick)	1
	10-13-070-012	Drive Gear for -012 units 27 teeth 3 grooves	1		10-13-037-009	Selective Spacer (.074 inch thick)	1
17	10-00-133-004	Bearing Cone	1		10-13-037-010	Selective Spacer (.076 inch thick)	1
18	10-00-133-003	Bearing Cup	1		10-13-037-011	Selective Spacer (.078 inch thick)	1
19	10-13-053-005	Selective Spacer (.207 inch thick) (3)	1		10-13-037-012	Selective Spacer (.064 inch thick)	1
	10-13-053-006	Selective Spacer (.209 inch thick)	1	35	0000138887	5/8-18 x 5/8 Soc. Hd. Set Screw - used on -006 & -009 units	1
	10-13-053-007	Selective Spacer (.211 inch thick)	1	36	10-13-068-001	Idler Shaft used in -002 units	1
	10-13-053-008	Selective Spacer (.213 inch thick)	1		10-13-068-002	Idler Shaft used in -004 units	1
	10-13-053-009	Selective Spacer (.214 inch thick)	1		10-13-068-004	Idler Shaft used in -006 & -008 units	1
	10-13-053-010	Selective Spacer (.216 inch thick)	1				
	10-13-053-011	Selective Spacer (.218 inch thick)	1				

(1) 34 required for -002 units and 52 required for -004 units.

(2) These parts are available in Kit No. 10-13-410-001

(3) Thickness given is approximate for ordering parts and may not be exact.