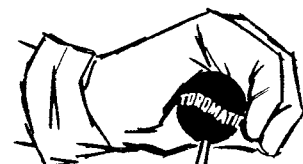
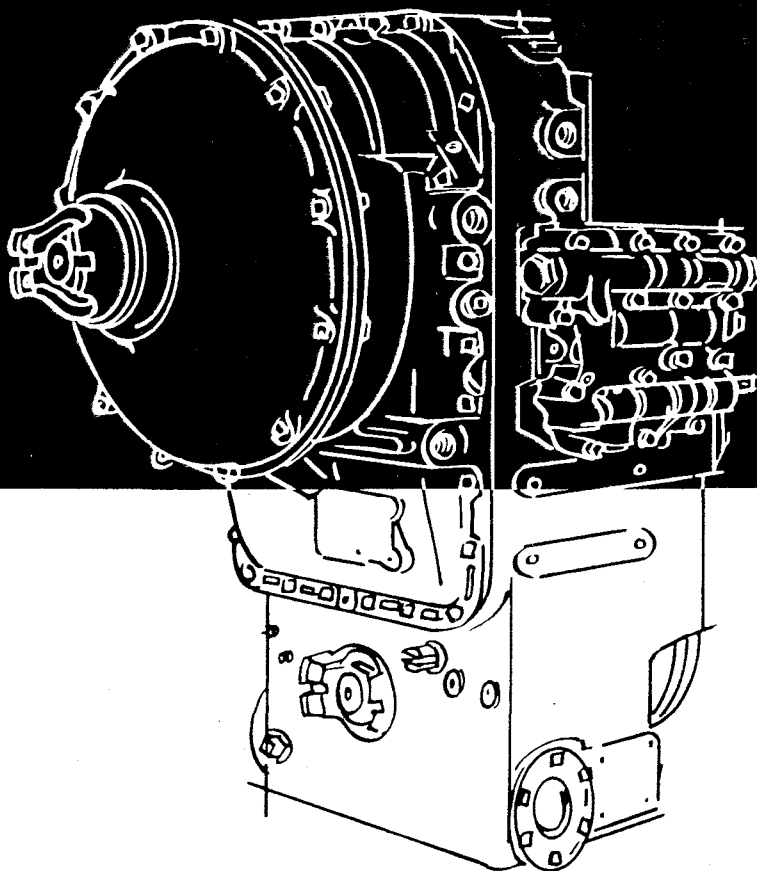


SA 1133
SERIES TT 2220

Allison

Hydro POWERSHIFT PRELIMINARY PARTS CATALOG



POWERSHIFT IS YOUR PROFIT

POWERSHIFT IS OUR BUSINESS



HOW TO FIND THE RIGHT PARTS WITH THIS PARTS CATALOG

FIRST, you must know the assembly part number of your Hydro POWERSHIFT Transmission in order to find the correct part number of the part you require.

This Hydro POWERSHIFT Transmission assembly part number appears on the name plate attached to the housing. The name plate is illustrated below.

USING PICTORIAL INDEX

Note that the pictorial index is only a guide to the group in which the particular part you want may be found. The part as shown in the index may not appear in its exact configuration or quantity. Its detail will be shown in the group listed. Each group listing is preceded by the Hydro POWERSHIFT Transmission assembly part numbers. Be sure the parts you want are right for your model transmission. Check your Hydro POWERSHIFT Transmission assembly part number with the numbers preceding each group listing. Do not use the figure reference numbers when ordering parts. Pages 4, 5 and 6 will further help you in ordering correctly the parts you need.



NAME PLATE

SERIES TT 2220 PARTS CATALOG

MODELS COVERED

The models covered in this catalog are listed numerically below by their A/N (Assembly Number). Information not included in this catalog can be obtained by contacting the Service Parts Department.

<u>A/N</u>	<u>Model</u>	<u>A/N</u>	<u>Model</u>
6774054	TT 2220	6774696	TT 2220
6774055	TT 2220	6774756	TT 2220
6774056	TT 2220	6774784	TT 2220
6774057	TT 2220	6774785	TT 2220
6774547	TT 2220	6774787	TT 2220
6774548	TT 2220		



Allison Division, General Motors Corporation, Box 894, Indianapolis 6, Indiana

1/1/63

TABLE OF CONTENTS

	<u>Page Number</u>	<u>Figure Number</u>
How to Find the Right Parts	3	
Model Designation Code	4	
Example of Parts List Organization	5	
How to Order Parts	6	
Glossary of Abbreviations	7	
Flange Group	I-1	I
Transmission Front Cover and Converter Group	II-1	II
Flex Disk, Converter Drive and Dry Converter Type Housing Group	III-1	III
Torque Converter Group	IV-1	IV
Torque Converter Housing Group	V-1	V
Transmission Housing Group	VI-1	VI
Turbine Driven Gears and Freewheel Unit	VII-1	VII
Reverse Clutch and Planetary Group	VIII-1	VIII
Forward Clutch and Planetary Group	IX-1	IX
High Range Clutch Group	X-1	X
Front Output Disconnect Clutch, Rear Output Shaft and Parking Brake	XI-1	XI
Charging Oil Pump Group	XII-1	XII
Control Valve Body Group	XIII-1	XIII
Power Take-off Group	XIV-1	XIV
Oil Temperature Gage and Oil Pressure Gage Group	XV-1	XV
Numerical Parts Index	Index-1	

MODEL DESIGNATION CODE
(Stamped on the Transmission Name Plate)

The letters "TT" indicate the Twin-Turbine type transmission and its major components. The digits 2220 indicate the 2000 Series Hydro POWERSHIFT Transmission, the dual range converter series, the transmission forward speed range and reverse speed range, and the number of major model changes. The example below illustrates the meaning of the letters and numbers.

"TT" describes an integral transmission unit composed of a hydraulic twin-turbine torque converter, and a planetary gear transmission. The first digit (2) indicates 2000 Series Hydro POWERSHIFT transmission. The second digit (2) indicates the dual range converter series. The third digit (2) indicates the transmission has two forward speed ranges and one reverse range speed. The fourth digit (0) indicates the number of major model changes.

Code Explanation

- TT - indicates twin turbines
- 2 - indicates 2000 Series Hydro POWERSHIFT transmission
- 2 - indicates dual-range converter series
- 2 - indicates transmission has two forward speed ranges and one reverse range
- 0 - indicates model change

EXAMPLE OF PARTS LIST ORGANIZATION

Here is an example of the parts list organization used in this catalog. Understanding this example will help you to order the right parts.

REF	NOMENCLATURE	PART NO	REQ
1	Assembly	6700001	1
2	Subassembly	6754002	1
3	Detail part	676003	1
4	Detail part	67543004	1
5	Detail part	67090005	2
6	Detail part	4597006	3
7	Detail part	3285007	1
8	Subassembly	6765008	1
9	Detail part	5950009*	4
10	Detail part	6759010*	1
11	Subassembly	67521011	1
12	Detail part	67573012	1
13	Subassembly	67094013	1
14	Detail part	67048014	1
15	Detail part	6750015	2
16	Detail part	67076016	1
17	Detail part	67854017	1
18	Assembly	5759018	1
19	Subassembly	4399019	1
20	Detail part	7550020	1

*Serviced in assembly only - not as a detail part.

Explanation

If you order part number 6700001, you will receive parts 6754002 through 6750015.

If you order part number 6754002, you will receive parts 676003 through 67090005.

If you order part number 676003, you will receive part 676003 only.

If you order part numbers 5950009 or 6759010, you will receive part 6765008 which is the assembly composed of parts 5950009 and 6759010. The star after part numbers 5950009 and 6759010 indicates that these parts are not serviced alone.

If you order part number 4597006, you will receive part 4597006 only.

If you order part number 67076016, you will receive part 67076016 only.

The numbers appearing in the column under REF are the item reference numbers appearing in the illustrations.

Summary

If an assembly or subassembly is ordered, all subassemblies and detail parts indented beneath it will be included.

If a detail part is ordered, only the detail part will be sent unless its part number is starred (*). A starred (*) part number means that such a part is not serviced alone. This is necessary because certain parts require factory installation or adjustment. If an order is received for a starred (*) part, the assembly or subassembly under which it is indented will be sent.

HOW TO ORDER PARTS

Be sure to give the Hydro POWERSHIFT Transmission Assembly Part Number, the Model, and the Serial Number found on the Hydro POWERSHIFT Transmission name plate.

Always give the part name and quantity desired as well as the part number.

CAUTION

Do not order parts directly from the numerical index.

NOTE

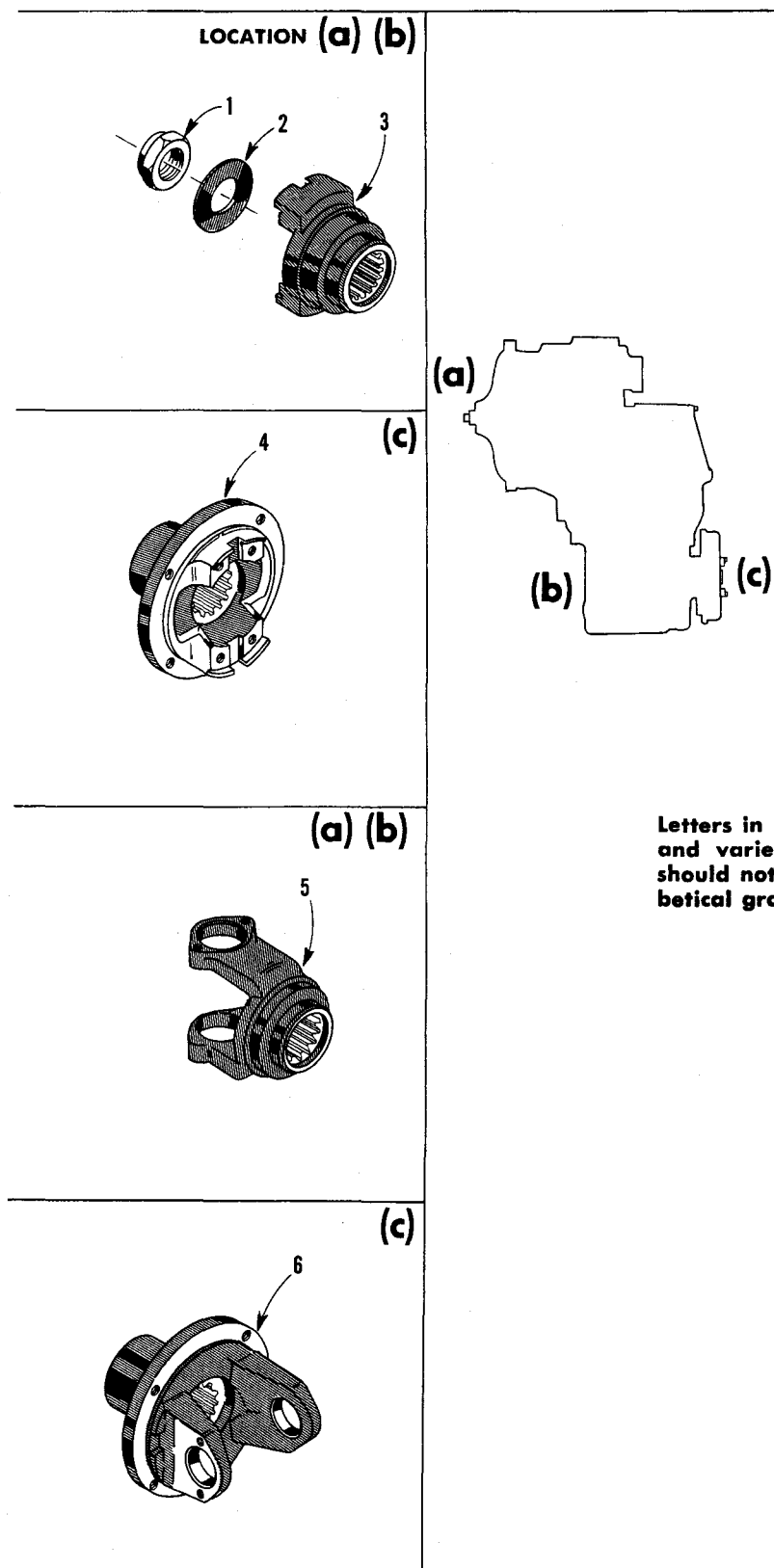
All parts orders should be placed with the distributor or dealer from whom you purchased your equipment. Do not place orders directly with Allison Division.



GLOSSARY OF ABBREVIATIONS

These abbreviations are formed by omitting the vowels.
Exceptions are standard accepted abbreviations.

adptr	adapter	intrnl	internal
&	and	lng	long
assy	assembly	mnfld	manifold
A/N	Assembly Number	med	medium
ar	as required	mntg	mounting
avail	available	NC	National Coarse Thread
brng	bearing	NF	National Fine Thread
brkt	bracket	NPT	National Taper Pipe Thread
brk	brake	ND	New Departure
bshng	bushing	no	number
ctr	center	OD	outside diameter
cls	class	OL	overall length
cl	cluster	OS	oversize
clu	clutch	pack	packing
C/o	consists of	pinn	pinion
c-pin	cotter pin	pln	plain
c'sunk	countersunk	plnt	planetary
dia	diameter	presr	pressure
div	division	regltr	regulator
drv	drive	rtnr	retainer
drvn	driven	rnd	round
drvng	driving	S/N	Serial Number
ea	each	srvc	service
exc	except	SIL	Special Information
exch	exchange	SK	Service Kit
expn	expansion	sld	slotted
extrnl	external	spcr	spacer
fil hd	fillister head	spcl	special
flng	flange	speedo	speedometer
flx	flexible	sq	square
flywhl	flywheel	sq-sckt	square socket
frt	front	std	standard
gskt	gasket	temp	temperature
gov	governor	thrd	thread
hd	head	trns	transmission
hx	hexagon	undrsz	undersize
hsng	housing	upr	upper
hydr	hydraulic	wshr	washer
incl	includes	W/	with
ID	inside diameter	W/out	without
instr	instrument		
inter	intermediate		



NOTE

Letters in parenthesis identify locations and variety of flanges available and should not be confused with the alphabetical group listings.

FIG. 1. FLANGE

FLANGE GROUP

To find detail parts for your Allison Hydro Powershift Transmission, turn to the group listed opposite the assembly part number of your transmission.

A/N*	MODEL	LOCATION	GROUP	A/N*	MODEL	LOCATION	GROUP
6774054	TT 2220-2	(a)	A	6774548	TT 2220-2	(a)	C
"	"	(b)	A	"	"	(b)	C
"	"	(c)	B	"	"	(c)	D
6774055	TT 2220-2	(a)	A	6774696	TT 2220-2	(b)	C
"	"	(b)	A	"	"	(c)	D
"	"	(c)	B	6774756	TT 2220-2	(b)	A
6774056	TT 2220-2	(b)	A	"	"	(c)	B
"	"	(c)	B	6774784	TT 2220-2	(b)	A
6774057	TT 2220-2	(a)	A	"	"	(c)	B
"	"	(b)	A	6774785	TT 2220-2	(b)	A
"	"	(c)	B	"	"	(c)	B
6774547	TT 2220-2	(a)	A	6774787	TT 2220-2	(b)	A
"	"	(b)	A	"	"	(c)	B
"	"	(c)	B				

*A/N (Assembly number) found on your transmission name plate.

GROUP A
FLANGE, Figure I

REF	NOMENCLATURE	PART NO	REQ
1	NUT, Flange retaining	9416389	1
2	WASHER, Flange.	6773457	1
3	FLANGE (Mech 5C).	6773554	1
4-6	Not used in this group.		

GROUP B
FLANGE, Figure I

Same as Group A, except for parts listed below.

3	Not used in this group.		
4	FLANGE (Mech 5C).	6773549	1

GROUP C
FLANGE, Figure I

Same as Group A, except for parts listed below.

3	Not used in this group.		
5	FLANGE (Yoke Type 5N)	6773571	1

GROUP D
FLANGE, Figure I

Same as Group A, except for parts listed below.

3	Not used in this group.		
6	FLANGE (Yoke Type 5N)	6773572	1

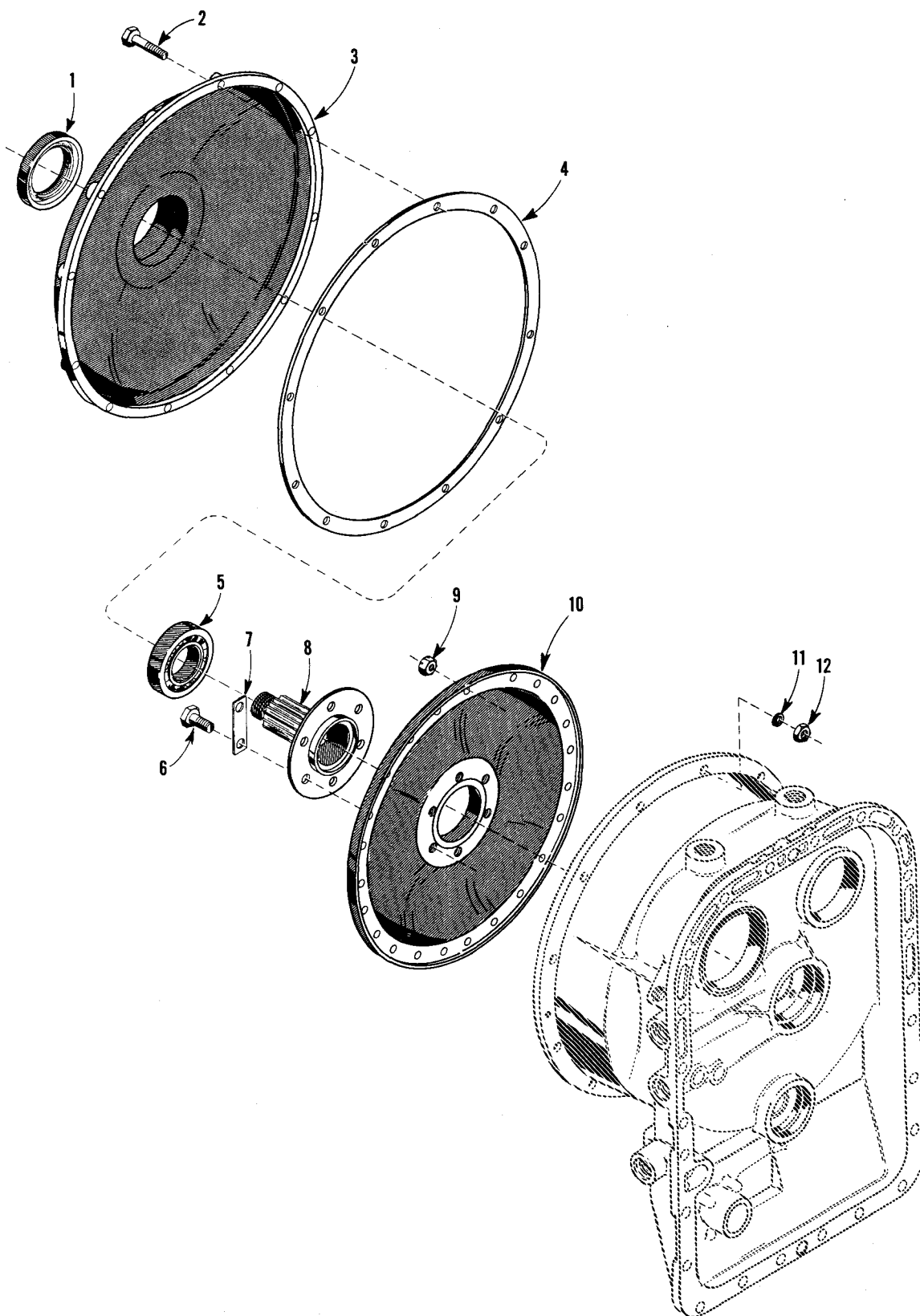


FIG. II. TRANSMISSION FRONT COVER AND CONVERTER DRIVE, EXPLODED VIEW
(Transmission Remote Mounted)

**TRANSMISSION FRONT COVER AND CONVERTER DRIVE GROUP
(TRANSMISSION REMOTE MOUNTED)**

**To find detail parts for your Allison Hydro Powershift Transmission, turn
to the group listed opposite the assembly part number of your transmission.**

A/N*	MODEL	GROUP	A/N*	MODEL	GROUP
6774054	TT 2220-2	A	6774547	TT 2220-2	A
6774055	TT 2220-2	A	6774548	TT 2220-2	A
6774057	TT 2220-2	A			

*A/N (Assembly number) found on your transmission name plate.

GROUP A
TRANSMISSION FRONT COVER AND CONVERTER DRIVE, Figure II
(Transmission Remote Mounted)

REF	NOMENCLATURE	PART NO	REQ
1	SEAL.	6773466	1
2	BOLT, 3/8-24 x 2.	181379	12
3	COVER, Transmission front	6773499	1
4	GASKET, Front cover	6758030	1
5	BEARING, Single row ball, ND 3210LR1214A.	907418	1
6	BOLT, 1/2-13 x 1 1/8.	179882	6
7	STRIP, Locking.	6757230	3
8	SHAFT, Input.	6773496	1
9	NUT, Hx, 5/16-24.	451006	24
10	COVER, Torque converter	6773506	1
11	WASHER, Lock, 3/8	103321	12
12	NUT, Hx, 3/8-24	103026	12

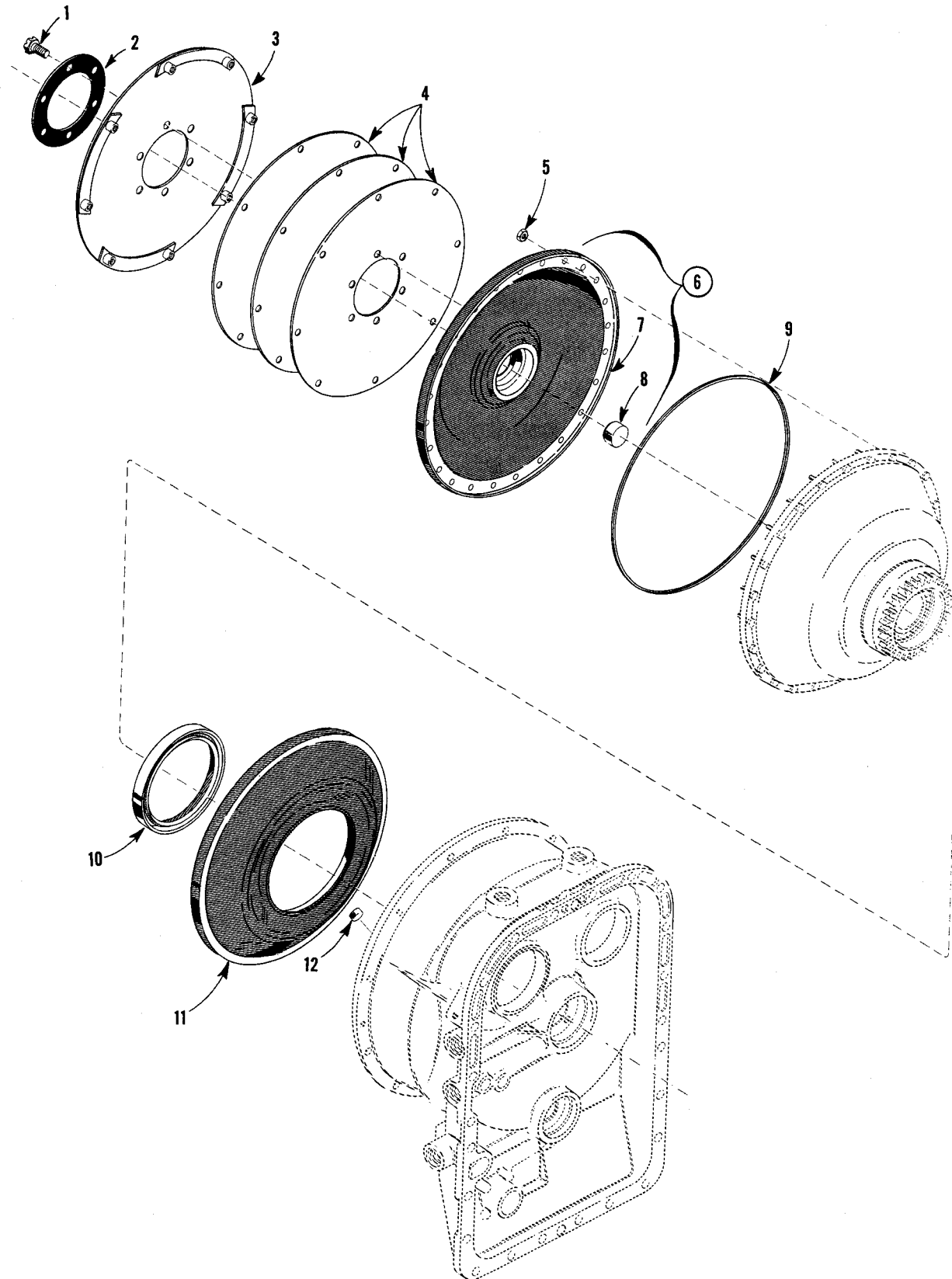


FIG. III. FLEX DISK, CONVERTER DRIVE AND DRY CONVERTER TYPE HOUSING, EXPLODED VIEW

FLEX DISK, CONVERTER DRIVE AND DRY CONVERTER TYPE HOUSING GROUP

To find detail parts for your Allison Hydro Powershift Transmission, turn to the group listed opposite the assembly part number of your transmission.

A/N*	MODEL	GROUP
6774056	TT 2220-2	A
6774696	TT 2220-2	A
6774756	TT 2220-2	A
6774784	TT 2220-2	A
6774785	TT 2220-2	A
6774787	TT 2220-2	A

*A/N (Assembly number) found on your transmission name plate.

GROUP A FLEX DISK, CONVERTER DRIVE AND DRY CONVERTER TYPE HOUSING, Figure III (Engine Mounted)

REF	NOMENCLATURE	PART NO	REQ
1	BOLT, Hx, 1/2-13 x 1.	9409258	6
2	PLATE, Flex disk.	6774012	1
3	DISK ASSY, Flexible	6774026	1
4	DISK, Flexible.	6774007	3
5	NUT, Hx, 5/16-24.	451006	24
6	COVER ASSY, Torque converter.	6774107	1
7	COVER, Torque converter.	6774008*	1
8	PLUG	6774106	1
9	RING, Seal.	6753866	1
10	SEAL, Oil	6771273	1
11	DIAPHRAGM, Converter.	6769681	1
12	PIUG.	6758042	1

* Serviced as an assy only - not as a detail part.

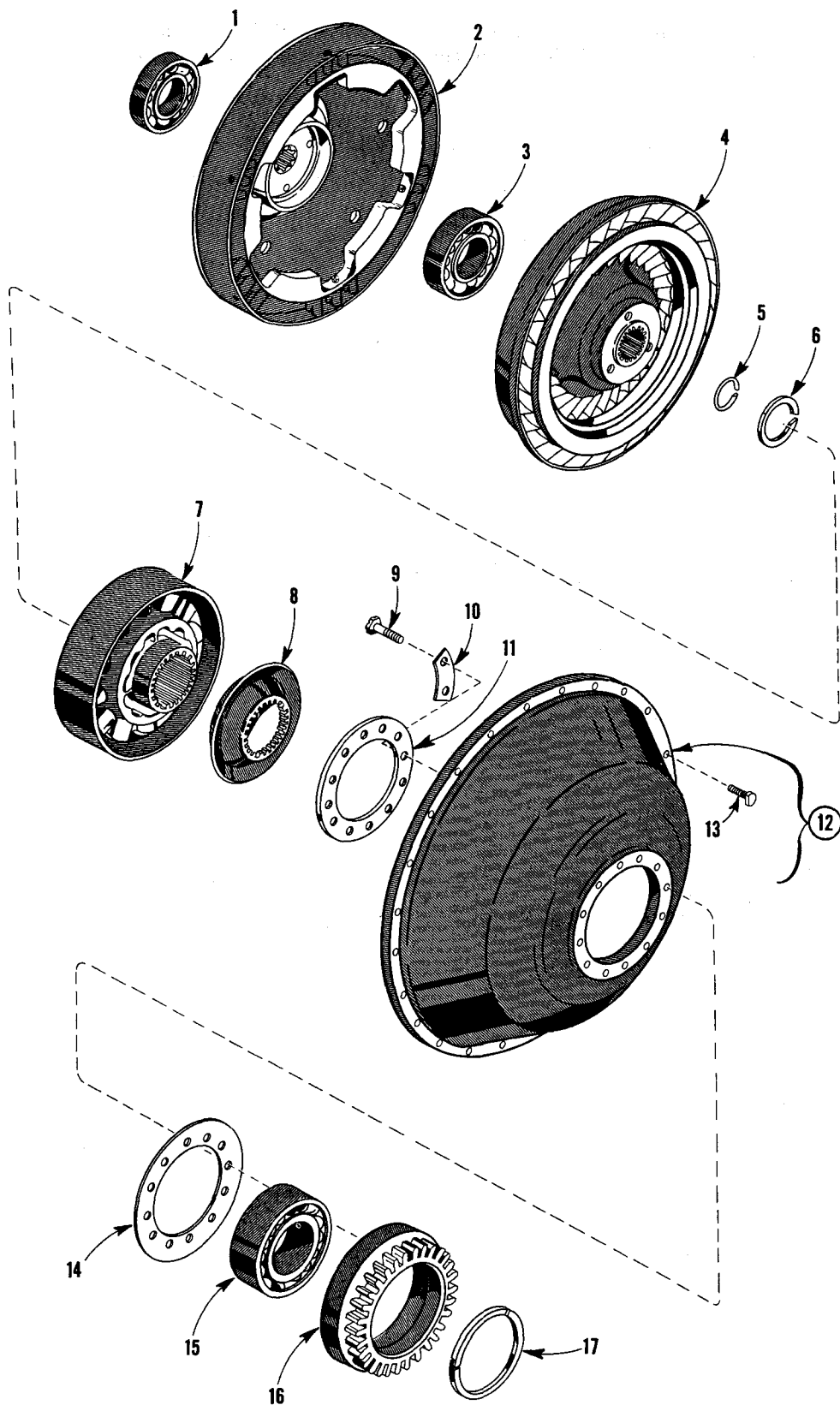


FIG. IV. TORQUE CONVERTER, EXPLODED VIEW

TORQUE CONVERTER GROUP

To find detail parts for your Allison Hydro Powershift Transmission, turn to the group listed opposite the assembly part number of your transmission.

A/N*	MODEL	GROUP	A/N*	MODEL	GROUP
6774054	TT 2220-2	A	6774696	TT 2220-2	B
6774055	TT 2220-2	B	6774756	TT 2220-2	A
6774056	TT 2220-2	B	6774784	TT 2220-2	B
6774057	TT 2220-2	A	6774785	TT 2220-2	A
6774547	TT 2220-2	B	6774787	TT 2220-2	A
6774548	TT 2220-2	B			

*A/N (Assembly number) found on your transmission name plate.

GROUP A
TORQUE CONVERTER, Figure IV

REF	NOMENCLATURE	PART NO	REQ
1	BEARING, Single row ball, ND 3208X1A.	903208	1
2	TURBINE ASSY, First	6773660	1
3	BEARING, Single row ball, ND 3209LR1214A.	907424	1
4	TURBINE, Torque converter, second	6773671	1
5	RING, Snap.	6773552	1
6	RING, Snap, external.	6703059	1
7	STATOR, Torque converter, 240 series, 5.20:1 stall torque ratio	6773670	1
8	SPACER.	6773661	1
9	BOLT, 5/16-24 x 1	9409514	12
10	STRIP, Locking.	6773486	6
11	RETAINER, Pump.	6773491	1
12	PUMP ASSY, Torque converter	6774123	1
13	BOLT, 5/16-24 x 1.30	6755988	24
14	GASKET, Pump.	6773490	1
15	BEARING, Double row ball, ND 5211WL1214A.	907431	1
16	GEAR, Input accessory drive	6773511	1
17	RING, Seal.	6773492	1

GROUP B
TORQUE CONVERTER, Figure IV

Same as Group A, except for parts listed below.

7	STATOR, Torque converter, 260 series, 4.89:1 stall torque ratio	6773667	1
---	--	---------	---

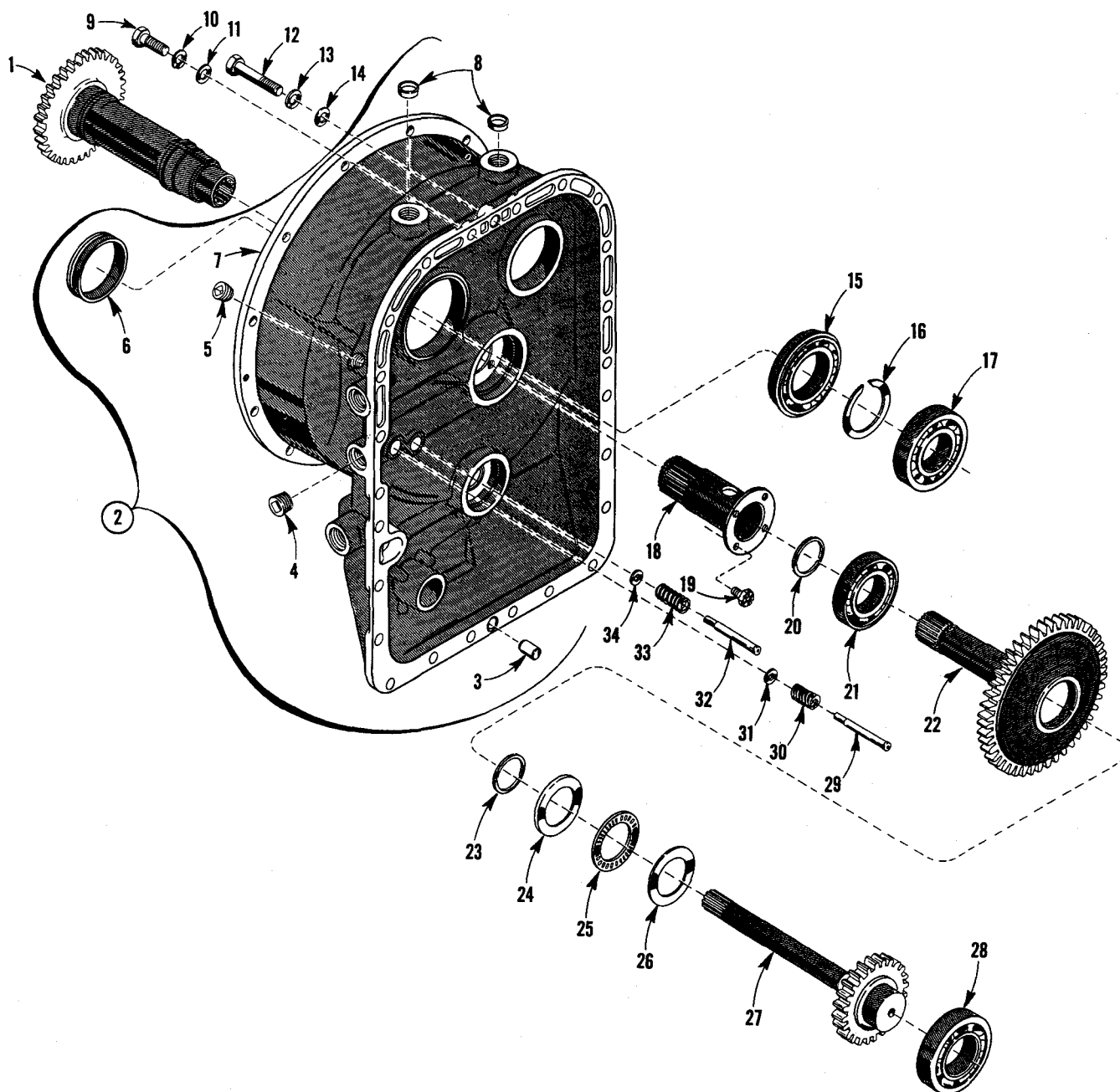


FIG. V. TORQUE CONVERTER HOUSING, EXPLODED VIEW

TORQUE CONVERTER HOUSING GROUP

To find detail parts for your Allison Hydro Powershift Transmission, turn to the group listed opposite the assembly part number of your transmission.

A/N*	MODEL	GROUP	A/N*	MODEL	GROUP
6774054	TT 2220-2	A	6774696	TT 2220-2	A
6774055	TT 2220-2	A	6774756	TT 2220-2	A
6774056	TT 2220-2	A	6774784	TT 2220-2	A
6774057	TT 2220-2	A	6774785	TT 2220-2	A
6774547	TT 2220-2	A	6774787	TT 2220-2	A
6774548	TT 2220-2	A			

*A/N (Assembly number) found on your transmission name plate.

GROUP A TORQUE CONVERTER HOUSING GROUP, Figure V

REF	NOMENCLATURE	PART NO	REQ
1	GEAR, Accessory driven.	6773497	1
2	HOUSING ASSY, Converter	6773669	1
3	PIN, Dowel, converter housing.	141281	1
4	PIUG	9409950	1
5	PIUG	444668	1
6	SLEEVE, Converter housing.	6773487	1
7	HOUSING, Converter	6773639*	1
8	PIUG	6774048	2
9	BOLT, Hx, 7/16-14 x 1 3/8	179861	23
10	WASHER, Lock, 7/16.	103322	23
11	WASHER, Flat, 7/16.	103342	23
12	BOLT, Hx, 7/16-14 x 2 3/4	179869	1
13	WASHER, Lock, 7/16.	103322	1
14	WASHER, Flat, 7/16.	103342	1
15	BEARING, Single row ball, ND 43L13L1214A.	907428	1
16	RING, Snap, external.	6750259	1
17	BEARING, Single row ball, ND 3L12L1214A	906729	1
18	SLEEVE, Converter ground.	6773488	1
19	BOLT, Hx, 5/16-18 x 3/4	9409011	4
20	RING, Seal.	6773483	1
21	BEARING, Single row ball, ND 3L11LR1214A.	905599	1
22	GEAR, Second turbine drive.	6773495	1
23	RING, Seal.	6773483	1
24	RACE, Thrust.	8619652	1
25	BEARING, Thrust, roller, Torrington FA 23382.	9414207	1
26	RACE, Thrust.	8619650	1
27	GEAR, First turbine drive	6773494	1
28	BEARING, Single row ball, ND 32L11LR1214A.	954528	1
29	PIN, Valve guide.	6773555	1
30	SPRING, Converter regulator	6773551	1
31	VALVE, Converter regulator.	6757447	1
32	PIN, Valve guide.	6773555	1
33	SPRING, Lube, overage	6773689	1
34	VALVE, Lube, overage.	6757447	1

* Serviced as an assy only - not as a detail part.

ALLISON HYDRO POWERSHIFT TRANSMISSION SERIES TT 2220 PARTS CATALOG

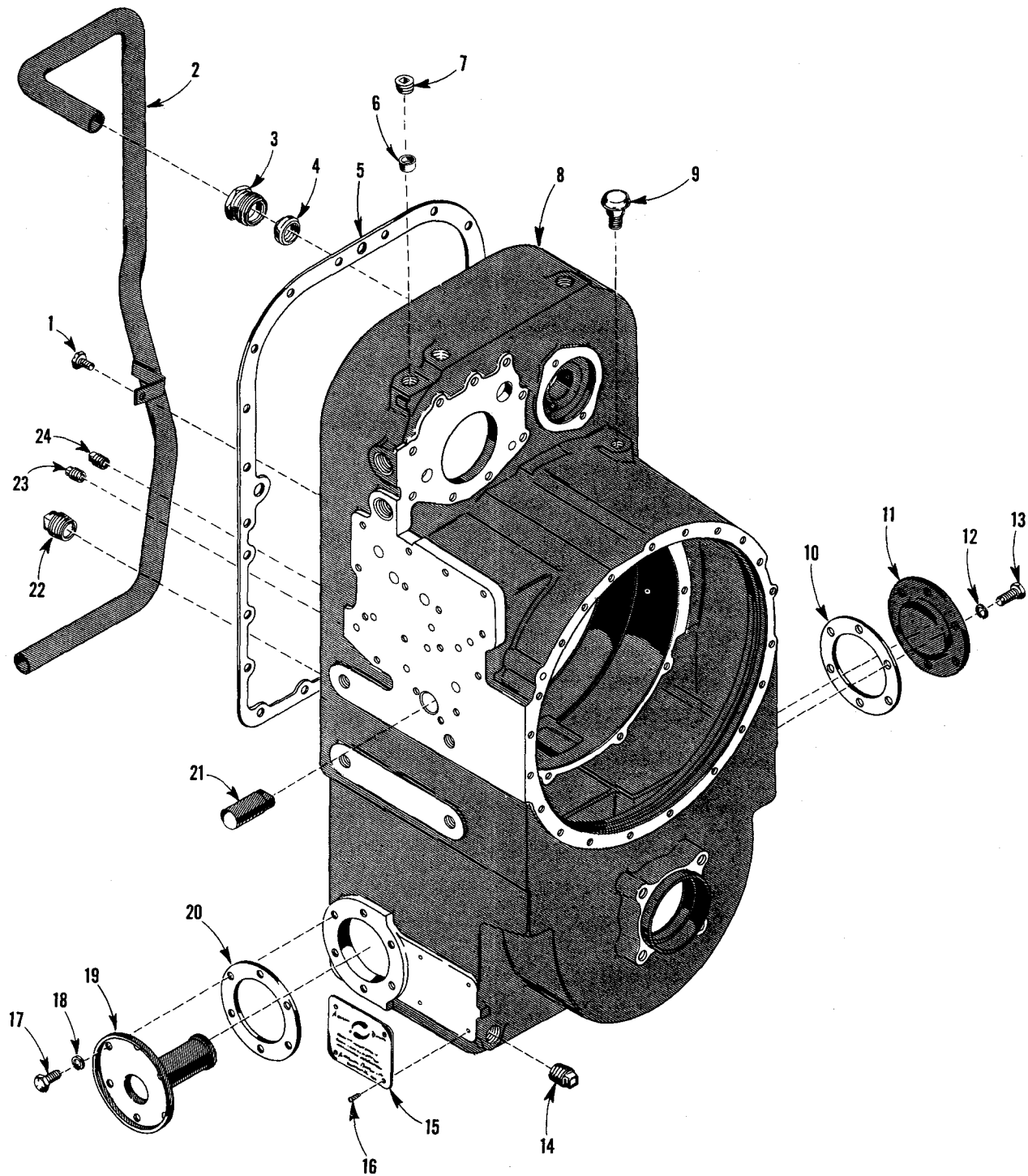


FIG. VI. TRANSMISSION HOUSING, EXPLODED VIEW

TRANSMISSION HOUSING GROUP

To find detail parts for your Allison Hydro Powershift Transmission, turn to the group listed opposite the assembly part number of your transmission.

A/N*	MODEL	GROUP	A/N*	MODEL	GROUP
6774054	TT 2220-2	A	6774696	TT 2220-2	A
6774055	TT 2220-2	A	6774756	TT 2220-2	A
6774056	TT 2220-2	A	6774784	TT 2220-2	A
6774057	TT 2220-2	A	6774785	TT 2220-2	A
6774547	TT 2220-2	A	6774787	TT 2220-2	A
6774548	TT 2220-2	A			

*A/N (Assembly number) found on your transmission name plate.

GROUP A
TRANSMISSION HOUSING, Figure VI

REF	NOMENCLATURE	PART NO	REQ
1	BOLT, Hx, 3/8-16 x 5/8.	9409259	1
2	TUBE, Suction	6773649	1
3	NUT, Male, suction tube	6773617	1
4	RING, Seal.	6773621	1
5	GASKET, Transmission housing.	6773570	1
6	PLUG, Remote filter	6773586	1
7	PLUG.	445751	1
8	HOUSING, Transmission	6773647	1
9	BREATHER.	6769936	1
10	GASKET.	6750256	1
11	COVER, Core, hole	6758337	1
12	WASHER, Lock, 3/8	103321	6
13	BOLT, Hx, 3/8-16 x 7/8.	179838	6
14	PLUG, Drain	444592	1
15	PLATE, Name	6768267	1
16	SCREW, Drive, No. 4 x 1/4	142862	4
17	BOLT, Hx, 3/8-16 x 7/8.	179838	6
18	WASHER, Lock, 3/8	103321	6
19	STRAINER ASSY	6773648	1
20	GASKET.	6750256	1
21	PIN, Anchor	6773460	1
22	PLUG, Oil filler.	143938	1
23	PLUG, Oil level add	444576	1
24	PLUG, Oil level full.	444576	1

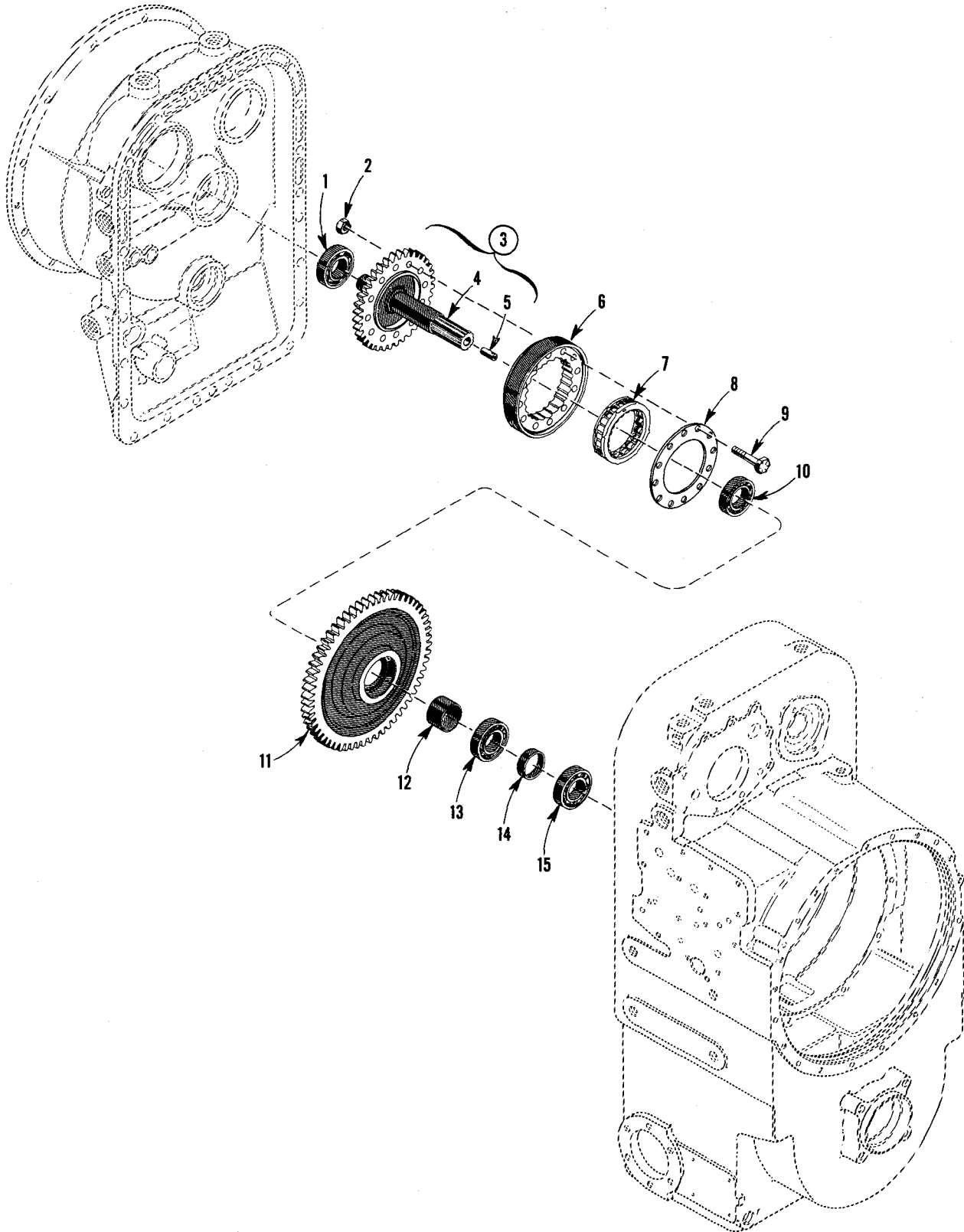


FIG. VII. TURBINE DRIVEN GEARS AND FREEWHEEL UNIT, EXPLODED VIEW

TURBINE DRIVEN GEARS AND FREEWHEEL UNIT

To find detail parts for your Allison Hydro Powershift Transmission, turn to the group listed opposite the assembly part number of your transmission.

A/N*	MODEL	GROUP	A/N*	MODEL	GROUP
6774054	TT 2220-2	A	6774696	TT 2220-2	A
6774055	TT 2220-2	A	6774756	TT 2220-2	A
6774056	TT 2220-2	A	6774784	TT 2220-2	A
6774057	TT 2220-2	A	6774785	TT 2220-2	A
6774547	TT 2220-2	A	6774787	TT 2220-2	A
6774548	TT 2220-2	A			

*A/N (Assembly number) found on your transmission name plate.

GROUP A
TURBINE DRIVEN GEARS AND FREEWHEEL UNIT, Figure VII

REF	NOMENCLATURE	PART NO	REQ
1	BEARING, Single row ball, ND 3207L1214A	907425	1
2	NUT, Hx, self locking, 3/8-24	560545	12
3	GEAR ASSY, Second turbine driven.	6773485	1
4	GEAR, Second turbine driven.	6773528*	1
5	TUBE, Orifice.	6756030	1
6	CAM, Freewheel.	6773501	1
7	ROLLER CLUTCH ASSY.	6773611	1
8	WASHER, Freewheel cam	6773489	1
9	BOLT, Hx, 3/8-24 x 2 1/4.	454916	12
10	BEARING, Single row ball, ND 3L07L1214A	907427	1
11	GEAR, First turbine driven.	6773493	1
12	SPACER, Bearing	6773509	1
13	BEARING, Single row ball, ND 3207L1214A	907425	1
14	SPACER.	6773510	1
15	BEARING, Single row ball, ND 3207L1214A	907425	1

* Serviced as an assy only - not as a detail part.

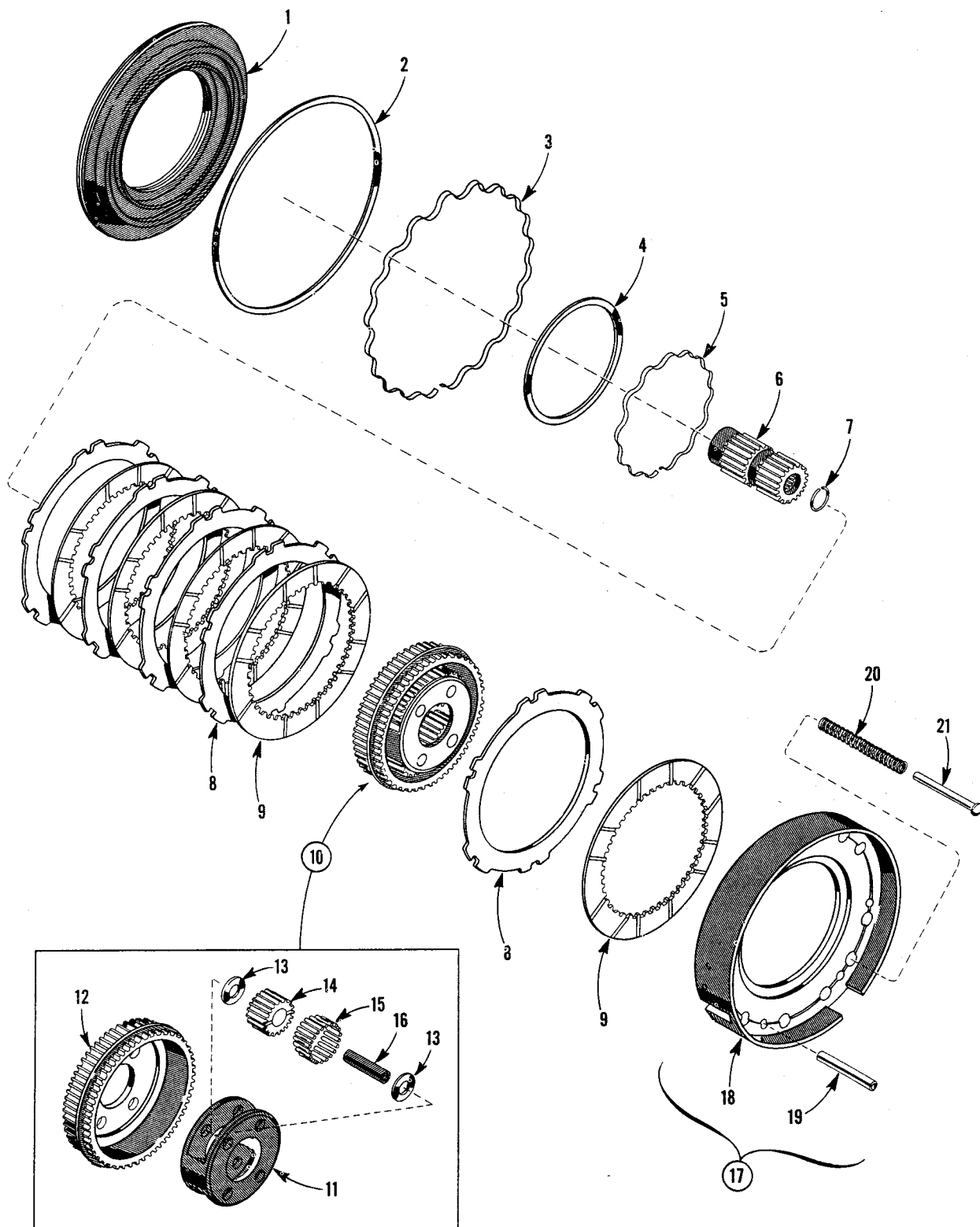


FIG. VIII. REVERSE CLUTCH AND PLANETARY, EXPLODED VIEW

REVERSE CLUTCH AND PLANETARY GROUP

To find detail parts for your Allison Hydro Powershift Transmission, turn to the group listed opposite the assembly part number of your transmission.

A/N*	MODEL	GROUP	A/N*	MODEL	GROUP
6774054	TT 2220-2	A	6774696	TT 2220-2	A
6774055	TT 2220-2	A	6774756	TT 2220-2	A
6774056	TT 2220-2	A	6774784	TT 2220-2	A
6774057	TT 2220-2	A	6774785	TT 2220-2	A
6774547	TT 2220-2	A	6774787	TT 2220-2	A
6774548	TT 2220-2	A			

*A/N (Assembly number) found on your transmission name plate.

GROUP A
REVERSE CLUTCH AND PLANETARY, Figure VIII

REF	NOMENCLATURE	PART NO	REQ
1	PISTON, Reverse	6768445	1
2	RING, Seal, Teflon.	6774343	1
3	EXPANDER.	6774346	1
4	RING, Seal, Teflon.	6774344	1
5	EXPANDER.	6774347	1
6	GEAR, Forward and reverse sun	6773470	1
7	RING, Snap.	6755903	1
8	PLATE, External splined	6759504	5
9	PLATE, Internal splined	6768446	5
10	CARRIER ASSY, Reverse planetary	6773610	1
11	CARRIER, Reverse	6757189	1
12	HUB, Reverse clutch.	6773609	1
13	WASHER, Thrust	6756586	8
14	PINION, Plnt (Matched set of 4 pinions).	6769716	1
15	ROLLER, Planetary pinion	6700213	88
16	SPINDLE.	6757152	4
17	ANCHOR ASSY, Reverse and forward clutch	6773462	1
18	ANCHOR, Reverse and forward clutch	6773498*	1
19	PIN.	6759488	6
20	SPRING.	6772068	12
21	PIN	6768988	12

* Serviced as an assy only - not as a detail part.

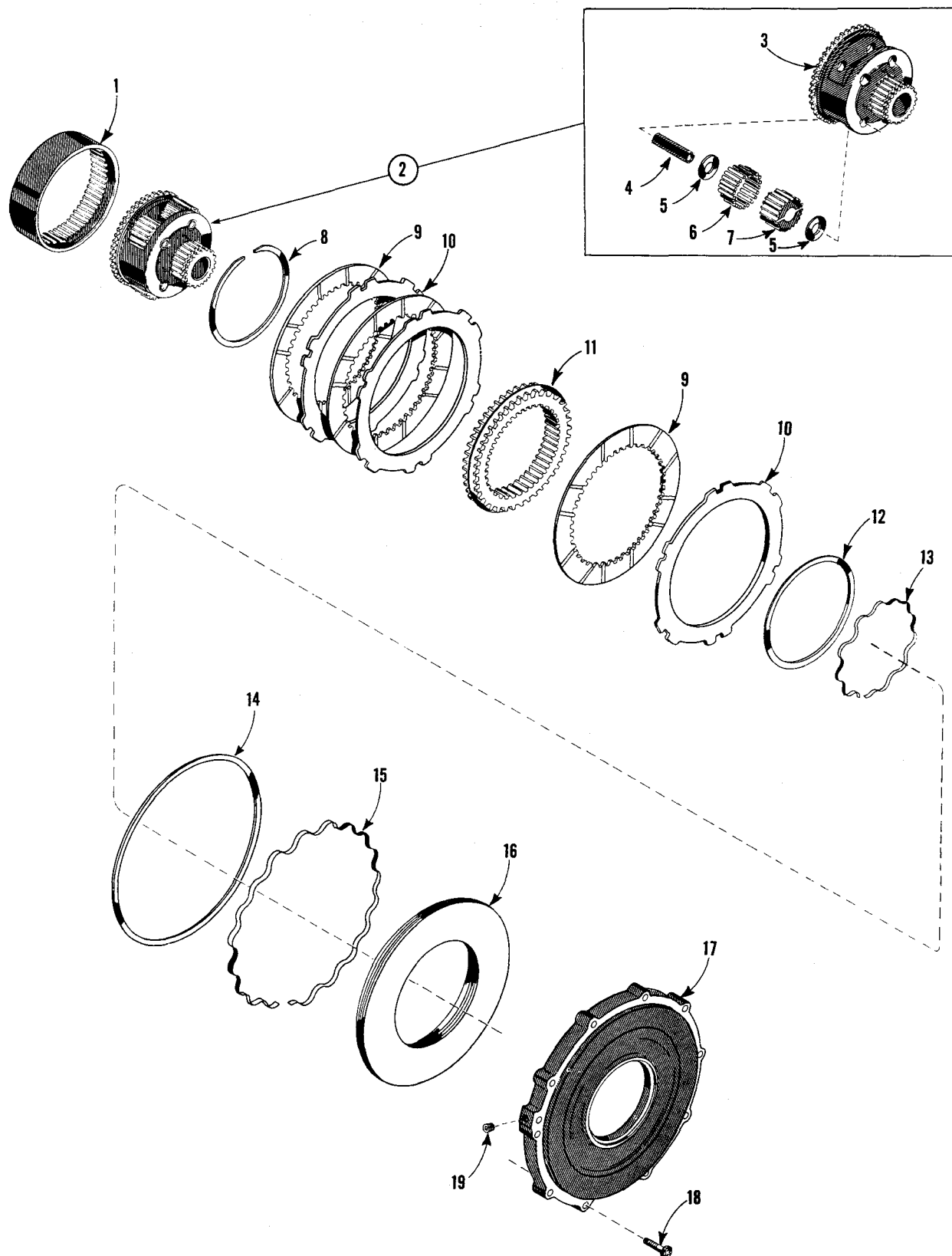


FIG. IX. FORWARD CLUTCH AND PLANETARY, EXPLODED VIEW

FORWARD CLUTCH AND PLANETARY GROUP

To find detail parts for your Allison Hydro Powershift Transmission, turn to the group listed opposite the assembly part number of your transmission.

A/N*	MODEL	GROUP	A/N*	MODEL	GROUP
6774054	TT 2220-2	A	6774696	TT 2220-2	A
6774055	TT 2220-2	A	6774756	TT 2220-2	A
6774056	TT 2220-2	A	6774784	TT 2220-2	A
6774057	TT 2220-2	A	6774785	TT 2220-2	A
6774547	TT 2220-2	A	6774787	TT 2220-2	A
6774548	TT 2220-2	A			

*A/N (Assembly number) found on your transmission name plate.

GROUP A FORWARD CLUTCH AND PLANETARY, Figure IX

REF	NOMENCLATURE	PART NO	REQ
1	GEAR, Reverse ring.	6757164	1
2	CARRIER ASSY, Forward planetary	6773482	1
3	CARRIER, Forward planetary	6773473	1
4	SPINDLE.	6757152	2
5	WASHER, Thrust	6756586	8
6	ROLLER, Planetary pinion	6700213	88
7	PINION, Plnt (Matched set of 4 pinions).	6769716	1
8	RING, Snap.	6755007	1
9	PLATE, Internal splined	6768446	3
10	PLATE, External splined	6759504	3
11	GEAR, Forward ring.	6768804	1
12	RING, Seal, Teflon.	6774344	1
13	EXPANDER.	6774347	1
14	RING, Seal, Teflon.	6774343	1
15	EXPANDER.	6774346	1
16	PISTON, Forward	6768445	1
17	HOUSING, Forward piston	6773479	1
18	BOLT, Hx hd, 3/8-16 x 1 1/2	9409231	10
19	PLUG.	274070	1

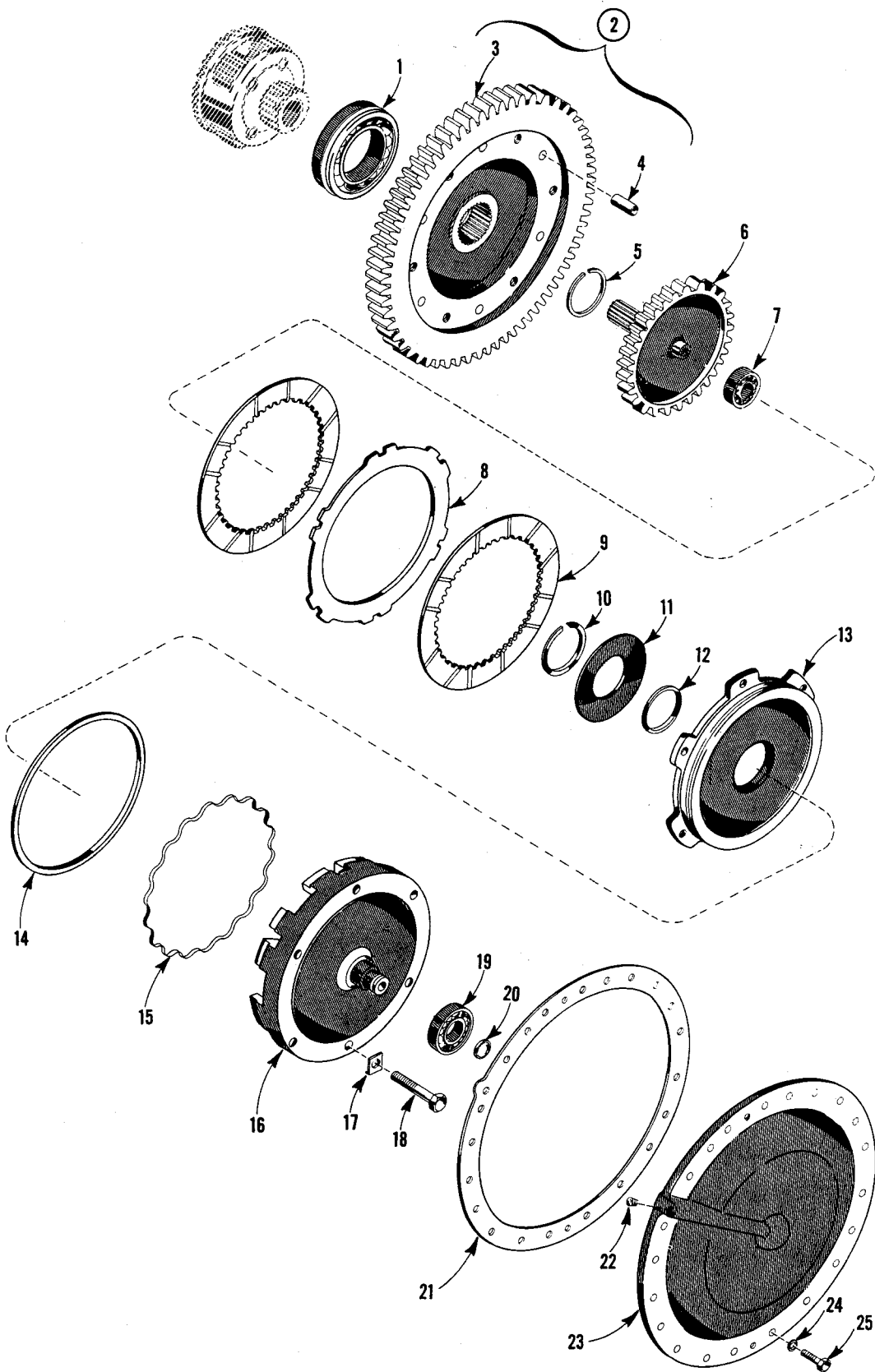


FIG. X. HIGH-RANGE CLUTCH, EXPLODED VIEW

HIGH RANGE CLUTCH GROUP

To find detail parts for your Allison Hydro Powershift Transmission, turn to the group listed opposite the assembly part number of your transmission.

A/N*	MODEL	GROUP	A/N*	MODEL	GROUP
6774054	TT 2220-2	A	6774696	TT 2220-2	A
6774055	TT 2220-2	A	6774756	TT 2220-2	A
6774056	TT 2220-2	A	6774784	TT 2220-2	A
6774057	TT 2220-2	A	6774785	TT 2220-2	A
6774547	TT 2220-2	A	6774787	TT 2220-2	A
6774548	TT 2220-2	A			

*A/N (Assembly number) found on your transmission name plate.

GROUP A
HIGH RANGE CLUTCH, Figure X

REF	NOMENCLATURE	PART NO	REQ
1	BEARING, Single row ball, ND 43L16L1214A. . . .	907429	1
2	GEAR ASSY, Transfer drive	6773467	1
3	GEAR, Transfer drive	6773474*	1
4	PIN.	6773459	6
5	RING, Snap.	6750259	1
6	HUB, High clutch.	6773469	1
7	BEARING, Single row ball, ND 3204LR1214A. . . .	907426	1
8	PLATE, External splined	6759504	1
9	PLATE, Internal splined	6768446	2
10	RING, Snap, external.	6756739	1
11	SPRING, Piston return	6756134	1
12	RING, Seal.	6754823	1
13	PISTON, High clutch	6773476	1
14	RING, Seal, Teflon.	6774342	1
15	EXPANDER.	6774345	1
16	HOUSING, High piston.	6773475	1
17	LOCK, Tab	6773461	6
18	BOLT, Hx, 1/2-20 x 2 3/4.	181441	6
19	BEARING, Single row ball, ND 3207L1214A	907425	1
20	RING, Seal.	6770432	1
21	GASKET, Rear cover.	6773477	1
22	PLUG.	274070	1
23	COVER, Rear	6773480	1
24	WASHER, Lock, 3/8	103321	21
25	BOLT, Hx, 3/8-16 x 1 1/8.	179840	21

* Serviced as an assy only - not as a detail part.

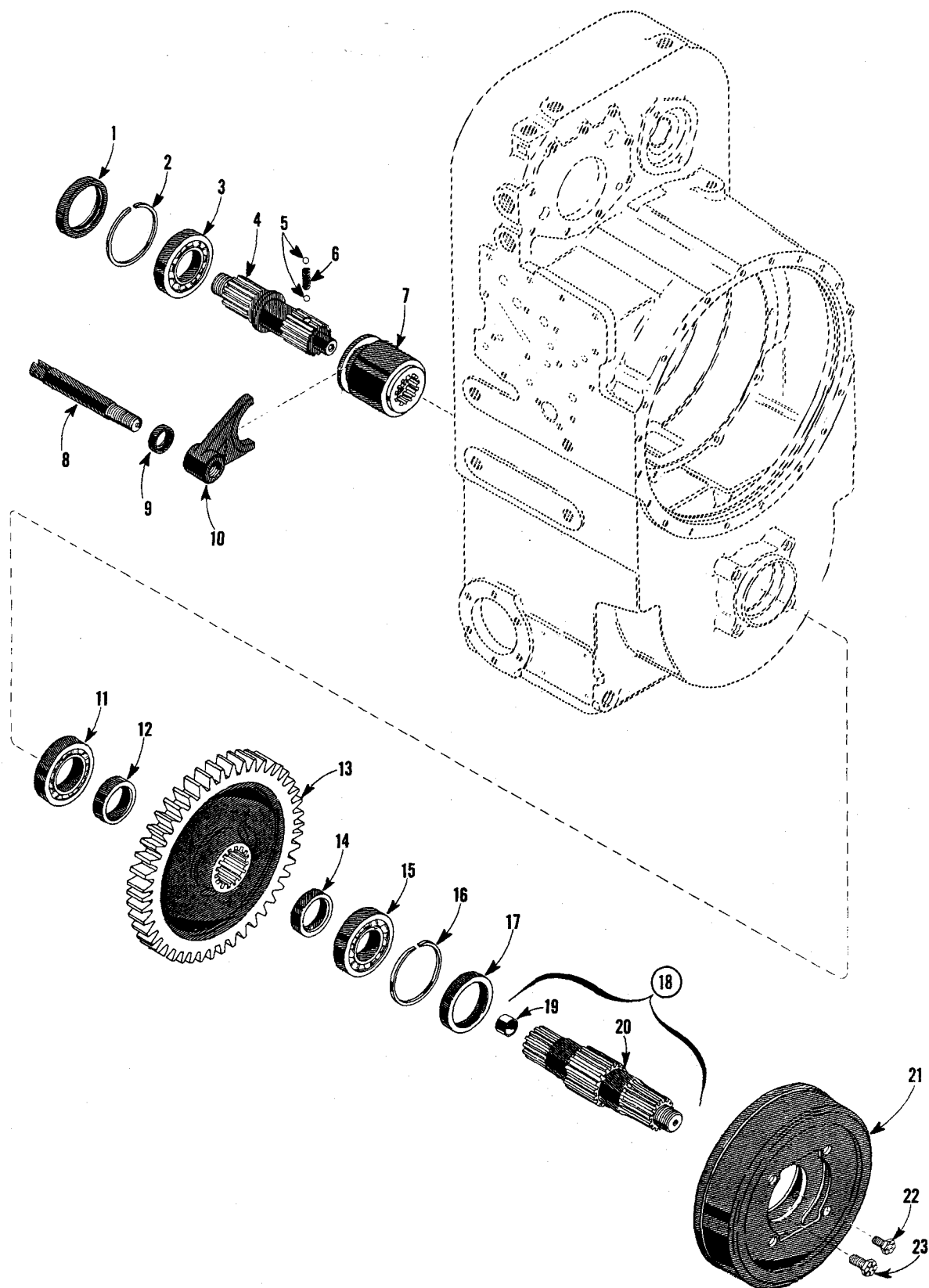


FIG. XI. FRONT OUTPUT DISCONNECT CLUTCH, REAR OUTPUT SHAFT AND PARKING BRAKE, EXPLODED VIEW

FRONT OUTPUT DISCONNECT CLUTCH, REAR OUTPUT SHAFT AND PARKING BRAKE GROUP

To find detail parts for your Allison Hydro Powershift Transmission, turn to the group listed opposite the assembly part number of your transmission.

A/N*	MODEL	GROUP	A/N*	MODEL	GROUP
6774054	TT 2220-2	A	6774696	TT 2220-2	A
6774055	TT 2220-2	A	6774756	TT 2220-2	A
6774056	TT 2220-2	A	6774784	TT 2220-2	A
6774057	TT 2220-2	A	6774785	TT 2220-2	A
6774547	TT 2220-2	A	6774787	TT 2220-2	A
6774548	TT 2220-2	A			

*A/N (Assembly number) found on your transmission name plate.

GROUP A
FRONT OUTPUT DISCONNECT CLUTCH, REAR OUTPUT
SHAFT AND PARKING BRAKE, Figure XI

REF	NOMENCLATURE	PART NO	REQ
1	SEAL, Oil	6773466	1
2	RING, Snap, internal.	6753893	1
3	BEARING, Single row ball, ND 3210LR1214A.	907418	1
4	SHAFT, Front output	6773471	1
5	BALL.	145643	2
6	SPRING.	6773464	1
7	COUPLING, Disconnect.	6773468	1
8	SHAFT, Shifter fork	6772187	1
9	SEAL, Oil	6703159	1
10	FORK, Shifter	6757246	1
11	BEARING, Single row ball, ND 3210LR1214A.	907418	1
12	SPACER.	6773650	1
13	GEAR, Transfer driven	6773478	1
14	SPACER.	6773650	1
15	BEARING, Single row ball, ND 3210LR1214A.	907418	1
16	RING, Snap, internal.	6753893	1
17	SEAL, Oil	6773466	1
18	SHAFT ASSY, Rear output	6773458	1
19	BUSHING.	6756835	1
20	SHAFT, Rear output	6773472*	1
21	BRAKE ASSY, Timkin (10 x 1 1/2)	6773550	1
22	BOLT, Hx, 1/2-13 x 7/8.	9409052	4
23	BOLT, Hx, 3/8-24 x 5/8.	9409033	4

* Serviced as an assy only - not as a detail part.

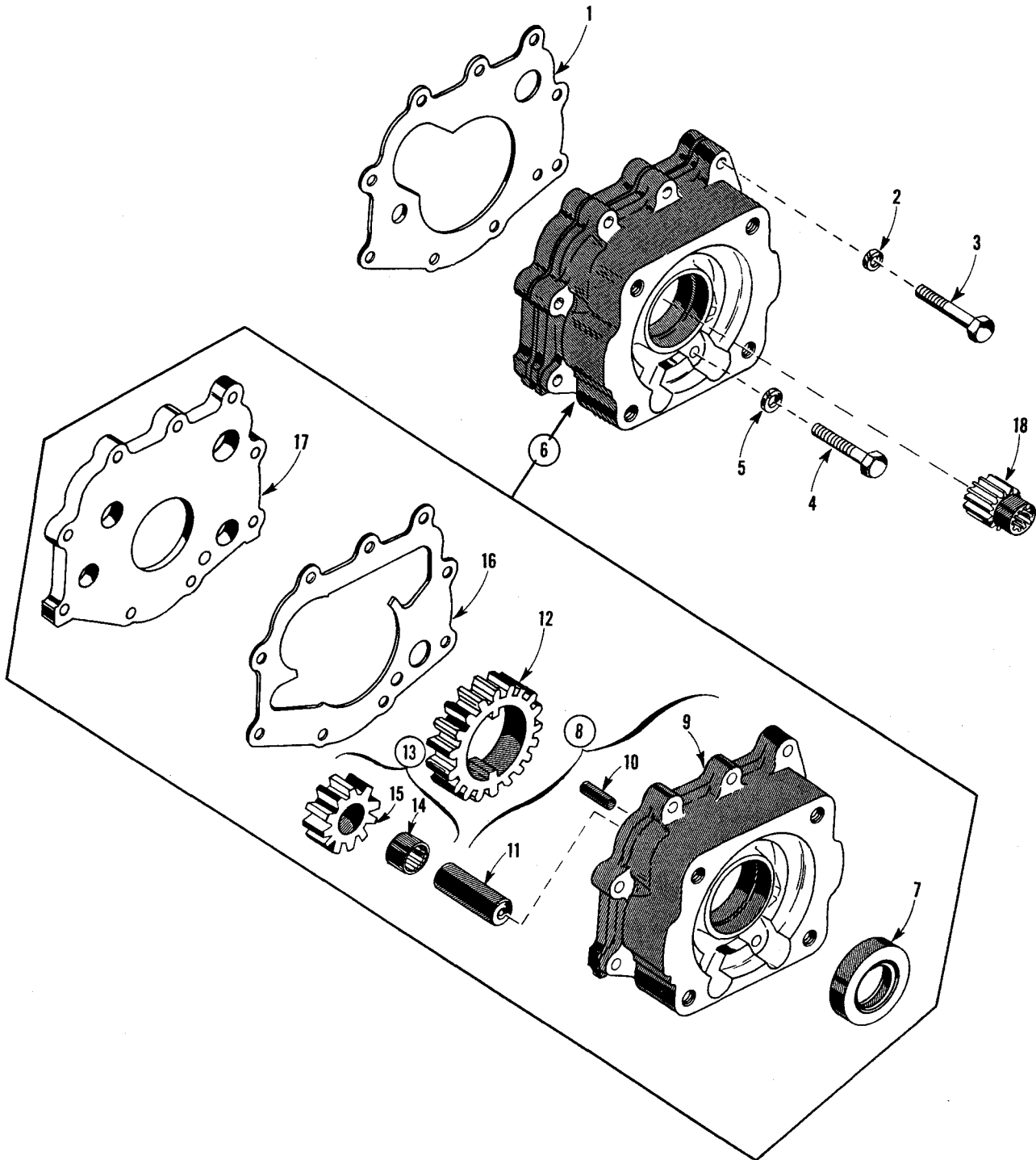


FIG. XII. CHARGING OIL PUMP, EXPLODED VIEW

CHARGING OIL PUMP GROUP

To find detail parts for your Allison Hydro Powershift Transmission, turn to the group listed opposite the assembly part number of your transmission.

A/N*	MODEL	GROUP	A/N*	MODEL	GROUP
6774054	TT 2220-2	A	6774696	TT 2220-2	A
6774055	TT 2220-2	B	6774756	TT 2220-2	A
6774056	TT 2220-2	A	6774784	TT 2220-2	B
6774057	TT 2220-2	B	6774785	TT 2220-2	B
6774547	TT 2220-2	A	6774787	TT 2220-2	B
6774548	TT 2220-2	A			

*A/N (Assembly number) found on your transmission name plate.

GROUP A
CHARGING OIL PUMP, Figure XII

REF	NOMENCLATURE	PART NO	REQ
1	GASKET, Oil pump.	6773542	1
2	WASHER, Lock, 3/8	103321	7
3	BOLT, Hx, 3/8-16 x 2.	179847	7
4	BOLT, Hx, 3/8-16 x 2 1/2.	179849	2
5	WASHER, Lock, 3/8	103321	2
6	PUMP ASSY, Charging oil "C" pad	6773536	1
7	SEAL, Oil.	6759590	1
8	BODY ASSY, Oil pump.	6773537	1
9	BODY, Oil pump.	6773545*	1
10	PIN	141281	1
11	SHAFT, Pump gear driven	6773539	1
12	GEAR, Drive.	6773540	1
13	GEAR ASSY, Oil pump driven	6773538	1
14	BEARING, Roller, Torrington J-1210.	9417600	1
15	GEAR, Driven.	6773541*	1
16	GASKET, Oil pump cover	6773543	1
17	COVER, Oil pump.	6773544	1
18	Not used in this group.		

GROUP B
CHARGING OIL PUMP, Figure XII

Same as Group A, except for parts listed below.

6	PUMP ASSY, Charging oil "B" pad	6773547	1
8	BODY ASSY, Oil pump.	6773546	1
9	BODY, Oil pump.	6773535*	1
18	COUPLING, Implement pump drive.	6771957	1

* Serviced as an assy only - not as a detail part.

CONTROL VALVE BODY GROUP

To find detail parts for your Allison Hydro Powershift Transmission, turn to the group listed opposite the assembly part number of your transmission.

A/N*	MODEL	GROUP	A/N*	MODEL	GROUP
6774054	TT 2220-2	A	6774696	TT 2220-2	A
6774055	TT 2220-2	B	6774756	TT 2220-2	A
6774056	TT 2220-2	C	6774784	TT 2220-2	A
6774057	TT 2220-2	A	6774785	TT 2220-2	A
6774547	TT 2220-2	A	6774787	TT 2220-2	A
6774548	TT 2220-2	A			

*A/N (Assembly number) found on your transmission name plate.

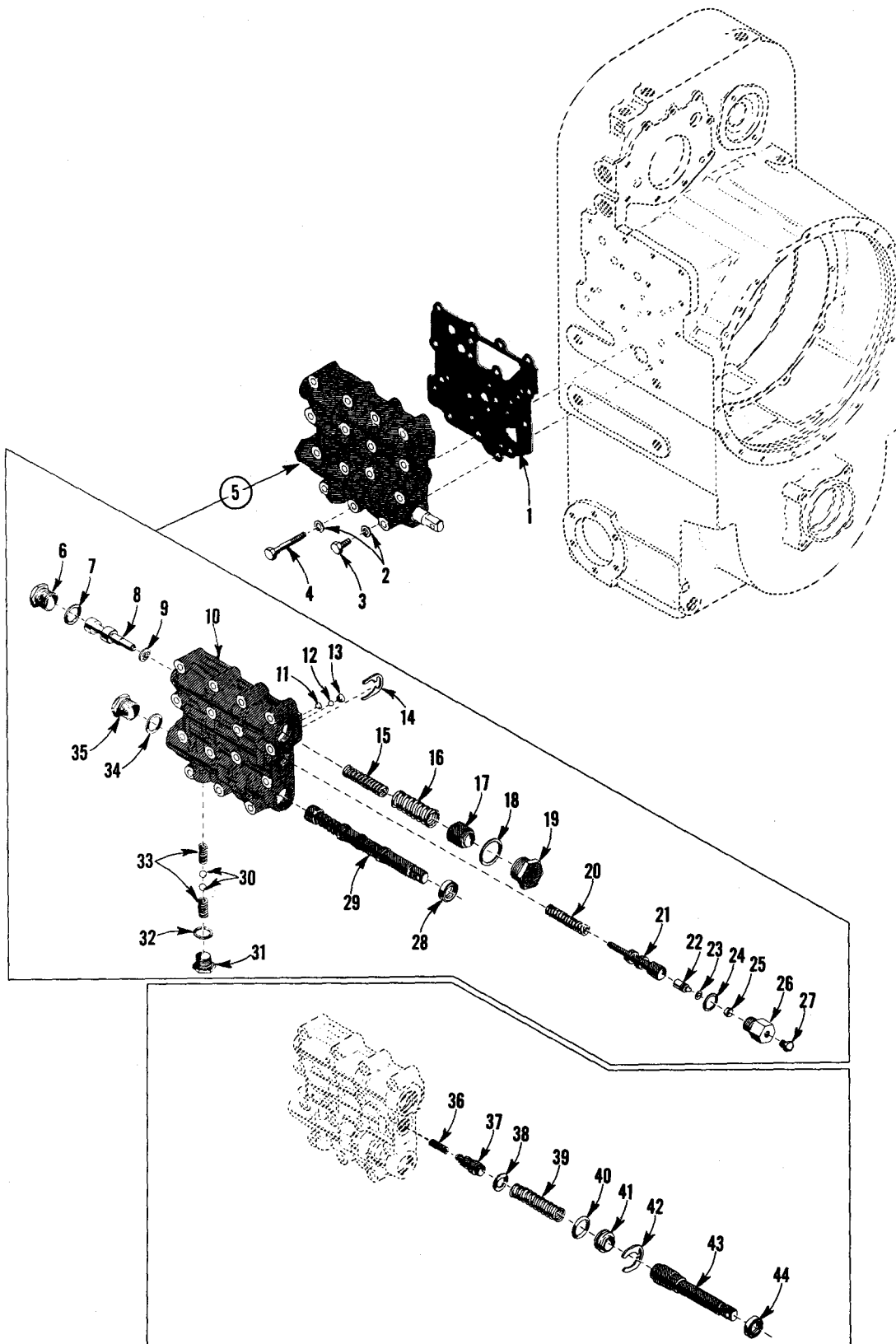


FIG. XIII. CONTROL VALVE BODY, EXPLODED VIEW

GROUP A
 CONTROL VALVE BODY, Figure XIII
 (With Hydraulic Actuated Clutch Cutoff Valve)

REF	NOMENCLATURE	PART NO	REQ
1	GASKET, Control valve	6773712	1
2	WASHER, Lock, 3/8	103321	16
3	BOLT, Hx, 3/8-16 x 1.	179839	1
4	BOLT, Hx, 3/8-16 x 2 1/2.	179849	15
5	VALVE ASSY, Control	6773721	1
6	PIUG	6773618	1
7	GASKET, Valve.	6701353	1
8	VALVE, Regulator	6773599	1
9	RETAINER, Spring	6773602	1
10	BODY, Control valve.	6773678	1
11	PIUG, Orifice.	6773620	1
12	BALL	6755913	1
13	PIUG, Ball retainer.	6773622	1
14	STOP, Valve.	6773592	1
15	SPRING, Regulator valve.	6774889	1
16	SPRING, Trimmer valve.	6773593	1
17	PIUG, Trimmer valve.	6773463	1
18	GASKET	6773607	1
19	PIUG	6773616	1
20	SPRING	6758503	1
21	VALVE, Clutch cutoff	6774262	1
22	PIUG	6771914	1
23	RING, Seal	6750558	1
24	GASKET	6772740	1
25	CUP.	6771913	1
26	PIUG, Cutoff valve	6758306	1
27	PIUG	444612	1
28	SEAL, Oil.	6772050	1
29	VALVE, Range selector.	6773589	1
30	BALL, Detent	145657	2
31	PIUG	6772643	1
32	GASKET	6772740	1
33	SPRING	6769251	2
34	GASKET, Valve.	6701353	1
35	PIUG	6773618	1
36-44	Not used in this group.		

GROUP B
CONTROL VALVE BODY, Figure XIII
(With Air Actuated Clutch Cutoff Valve)

Same as Group A, except for parts listed below.

REF	NOMENCLATURE	PART NO	REQ
5	VALVE ASSY, Control	6774092	1
22	PLUG	6758305	1
25	Not used in this group.		
26	PLUG	6771378	1
27	Not used in this group.		

GROUP C
CONTROL VALVE BODY, Figure XIII
(Inching Control)

Same as Group A, except for parts listed below.

5	VALVE ASSY, Control	6773717	1
10	BODY, Control valve.	6773677	1
20-27	Not used in this group.		
36	SPRING, Regulator valve.	6770298	1
37	VALVE, Inching regulator	6772055	1
38	STOP	6773606	1
39	SPRING, Inching valve.	6772046	1
40	RING, Seal	6772051	1
41	PLUG	6772045	1
42	STOP	6773713	1
43	VALVE, Inching	6772052	1
44	SEAL, Oil.	6772050	1

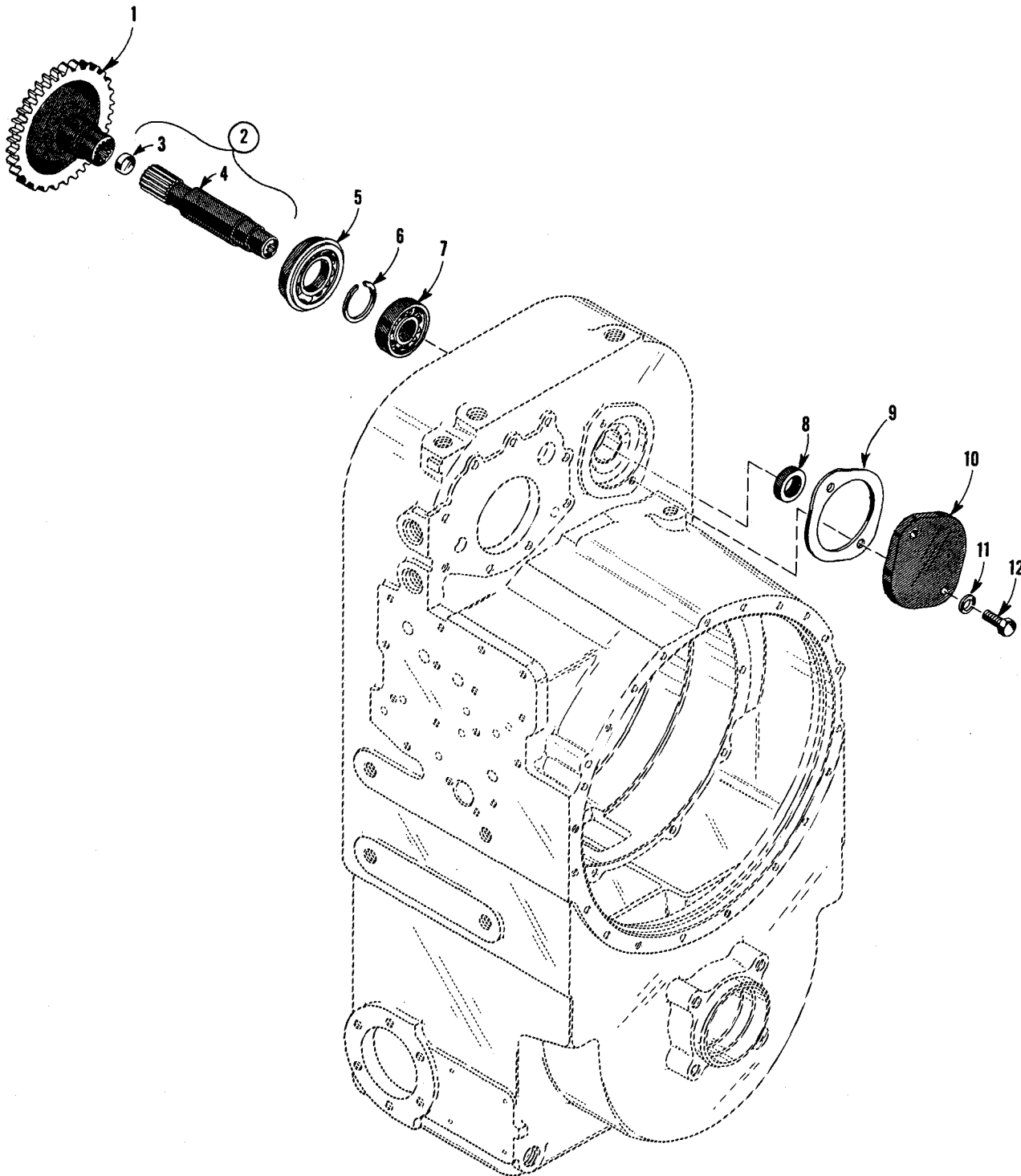


FIG. XIV. POWER TAKEOFF, EXPLODED VIEW

POWER TAKE-OFF GROUP

To find detail parts for your Allison Hydro Powershift Transmission, turn to the group listed opposite the assembly part number of your transmission.

A/N*	MODEL	GROUP	A/N*	MODEL	GROUP
6774054	TT 2220-2	A	6774696	TT 2220-2	B
6774055	TT 2220-2	B	6774756	TT 2220-2	A
6774056	TT 2220-2	B	6774784	TT 2220-2	B
6774057	TT 2220-2	A	6774785	TT 2220-2	A
6774547	TT 2220-2	B	6774787	TT 2220-2	B
6774548	TT 2220-2	A			

*A/N (Assembly number) found on your transmission name plate.

GROUP A
POWER TAKEOFF, Figure XIV

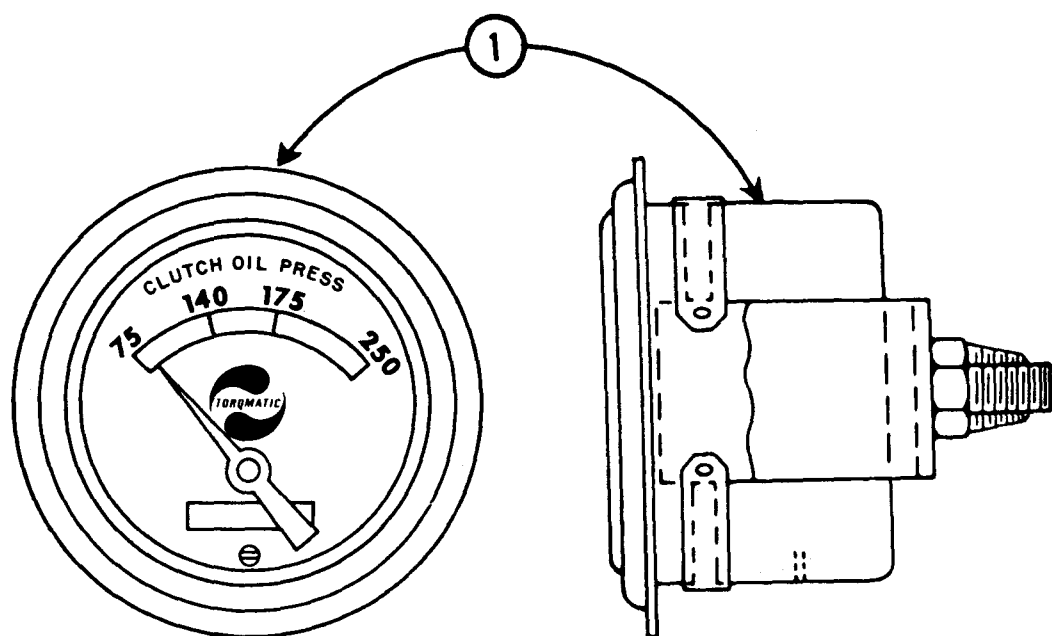
REF	NOMENCLATURE	PART NO	REQ
1	GEAR, Accessory drive	6773601	1
2	SHAFT ASSY, Accessory drive	6773604	1
3	PLUG	6758042	1
4	SHAFT, Accessory drive	6773603*	1
5	BEARING, Single row ball, ND 43208LR1214A	907446	1
6	RING, Snap.	6750127	1
7	BEARING, Single row ball, ND 3206LR1214A.	907445	1
8	SEAL, Oil	6773201	1
9-12	Not used in this group.		

GROUP B
POWER TAKEOFF, Figure XIV

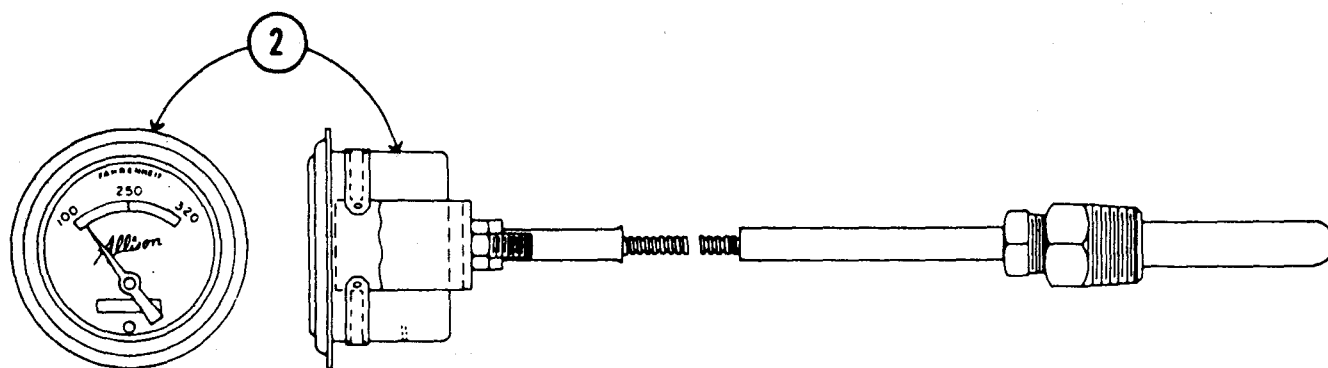
Same as Group A, except for parts listed below.

1-8	Not used in this group.		
9	GASKET, Accessory drive cover	6773583	1
10	COVER, Accessory drive.	6773584	1
11	WASHER, Lock, 3/8	103321	2
12	BOLT, Hx, 3/8-16 x 1.	179839	2

* Serviced as an assy only - not as a detail part.



CLUTCH OIL PRESSURE GAGE



OIL TEMPERATURE GAGE

MISCELLANEOUS OPTIONS GROUP

These parts are optional on all Hydro POWERSHIFT
Transmissions listed in this catalog.

CLUTCH OIL PRESSURE GAGE, Figure XV

REF	NOMENCLATURE	PART NO	REQ
1	GAGE, Clu oil presr	6756654	1

OIL TEMPERATURE GAGE, Figure XV

2	GAGE, Oil temp (W/10 foot capillary).	6756665	1
2	GAGE, Oil temp (W/6 foot capillary)	6756667	1
2	GAGE, Oil temp (W/4 foot capillary)	6759551	1.

SEE INSIDE FRONT COVER BEFORE USING THIS INDEX

NUMERICAL PARTS INDEX

The numerical parts index lists the parts reference number and the figure number of the illustration in which it appears. The reference numbers are keyed to the group listings. However, you must know the transmission assembly part number to identify the right group.

Part numbers for parts marked "Not shown, listed page 00-0" can be found in the group listings on the page indicated.

NUMERICAL PARTS INDEX

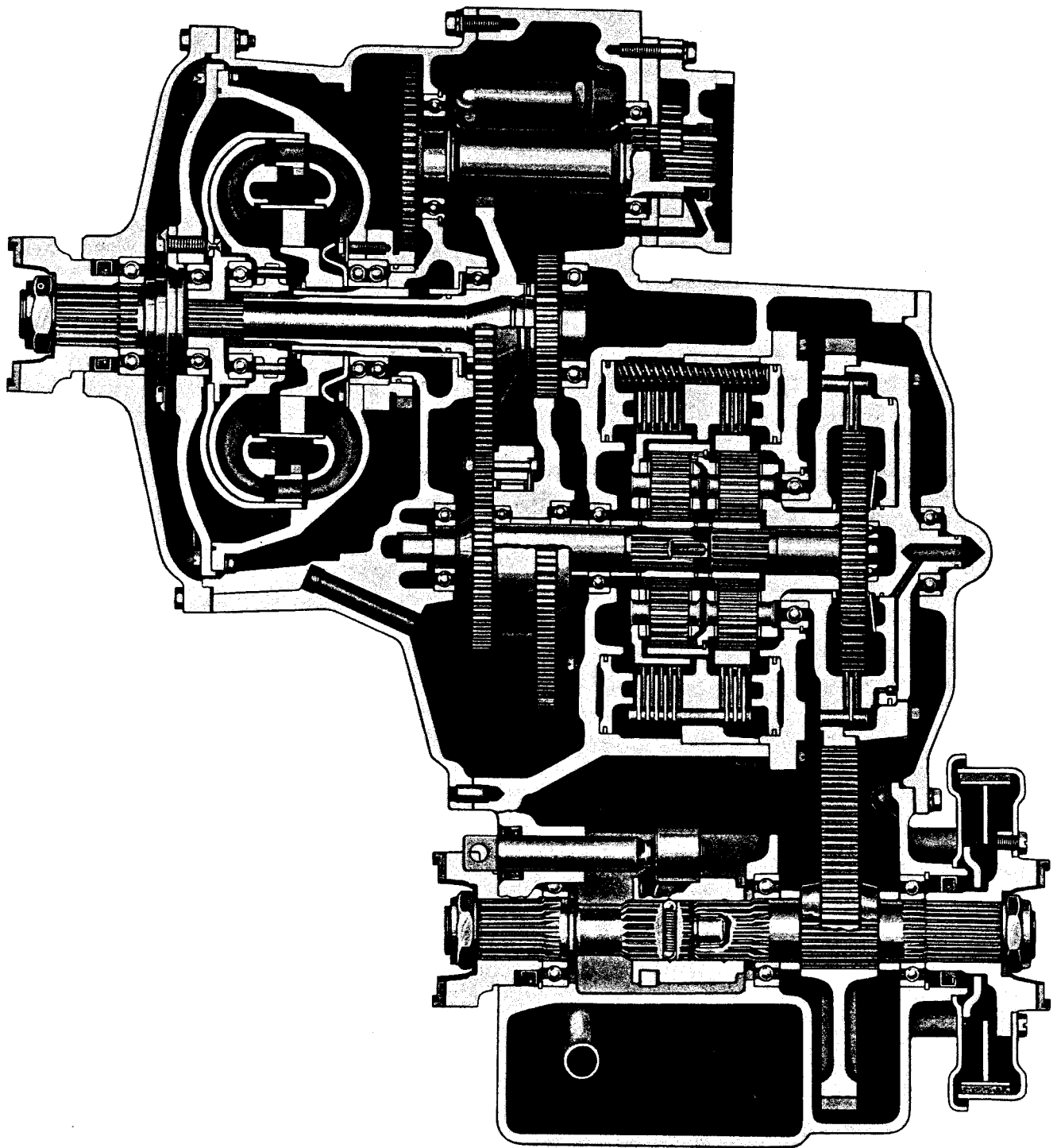
PART NO	REFERENCE NO	FIGURE NO	PART NO	REFERENCE NO	FIGURE NO
103026	12	II	954528	28	V
103321	11	II	6700213	15	VIII
103321	12, 18	VI	6700213	6	IX
103321	24	X	6701353	7, 34	XIII
103321	2, 5	XII	6703059	6	IV
103321	2	XIII	6703159	9	XI
103321	11	XIV	6750127	6	XIV
103322	10, 13	V	6750256	10, 20	VI
103342	11, 14	V	6750259	16	V
141281	3	V	6750259	5	X
141281	10	XII	6750558	23	XIII
142862	16	VI	6753866	9	III
143938	22	VI	6753893	2, 16	XI
145643	5	XI	6754823	12	X
145657	30	XIII	6755007	8	IX
179838	13, 17	VI	6755903	7	VIII
179839	3	XIII	6755913	12	XIII
179839	12	XIV	6755988	13	IV
179840	25	X	6756030	5	VII
179847	3	XII	6756134	11	X
179849	4	XII	6756586	13	VIII
179849	4	XIII	6756586	5	IX
179861	9	V	6756739	10	X
179869	12	V	6756835	19	XI
179882	6	II	6757152	16	VIII
181379	2	II	6757152	4	IX
181441	18	X	6757164	1	IX
274070	19	IX	6757189	11	VIII
274070	22	X	6757230	7	II
444576	23, 24	VI	6757246	10	XI
444592	14	VI	6757447	31, 34	V
444612	27	XIII	6758030	4	II
444668	5	V	6758042	12	III
445751	7	VI	6758042	3	XIV
451006	9	II	6758305	22	XIII
451006	5	III	6758306	26	XIII
454916	9	VII	6758337	11	VI
560545	2	VII	6758503	20	XIII
903208	1	IV	6759488	19	VIII
905599	21	V	6759504	8	VIII
906729	17	V	6759504	10	IX
907418	5	II	6759504	8	X
907418	3, 11, 15	XI	6759590	7	XII
907424	3	IV	6768267	15	VI
907425	1, 13, 15	VII	6768445	1	VIII
907425	19	X	6768445	16	IX
907426	7	X	6768446	9	VIII
907427	10	VII	6768446	9	IX
907428	15	V	6768446	9	X
907429	1	X	6768804	11	IX
907431	15	IV	6768988	21	VIII
907445	7	XIV	6769251	33	XIII
907446	5	XIV	6769681	11	III

NUMERICAL PARTS INDEX

PART NO	REFERENCE NO	FIGURE NO	PART NO	REFERENCE NO	FIGURE NO
6769716	14	VIII	6773490	14	IV
6769716	7	IX	6773491	11	IV
6769936	9	VI	6773492	17	IV
6770298	36	XIII	6773493	11	VII
6770432	20	X	6773494	27	V
6771273	10	III	6773495	22	V
6771378	26	XIII	6773496	8	II
6771913	25	XIII	6773497	1	V
6771914	22	XIII	6773498	18	VIII
6771957	18	XII	6773499	3	II
6772045	41	XIII	6773501	6	VII
6772046	39	XIII	6773506	10	II
6772050	28	XIII	6773509	12	VII
6772050	44	XIII	6773510	14	VII
6772051	40	XIII	6773511	16	IV
6772052	43	XIII	6773528	4	VII
6772055	37	XIII	6773535	9	XII
6772068	20	VIII	6773536	6	XII
6772187	8	XI	6773537	8	XII
6772643	31	XIII	6773538	13	XII
6772740	24, 32	XIII	6773539	11	XII
6773201	8	XIV	6773540	12	XII
6773457	2	I	6773541	15	XII
6773458	18	XI	6773542	1	XII
6773459	4	X	6773543	16	XII
6773460	21	VI	6773544	17	XII
6773461	17	X	6773545	9	XII
6773462	17	VIII	6773546	8	XII
6773463	17	XIII	6773547	6	XII
6773464	6	XI	6773549	4	I
6773466	1	II	6773550	21	XI
6773466	1, 17	XI	6773551	30	V
6773467	2	X	6773552	5	IV
6773468	7	XI	6773554	3	I
6773469	6	X	6773555	29, 32	V
6773470	6	VIII	6773570	5	VI
6773471	4	XI	6773571	5	I
6773472	20	XI	6773572	6	I
6773473	3	IX	6773583	9	XIV
6773474	3	X	6773584	10	XIV
6773475	16	X	6773586	6	VI
6773476	13	X	6773589	29	XIII
6773477	21	X	6773592	14	XIII
6773478	13	XI	6773593	16	XIII
6773479	17	IX	6773594	Replaced by 6774889	
6773480	23	X	6773599	8	XIII
6773482	2	IX	6773601	1	XIV
6773483	20, 23	V	6773602	9	XIII
6773485	3	VII	6773603	4	XIV
6773486	10	IV	6773604	2	XIV
6773487	6	V	6773606	38	XIII
6773488	18	V	6773607	18	XIII
6773489	8	VII	6773609	12	VIII

NUMERICAL PARTS INDEX

PART NO	REFERENCE NO	FIGURE NO	PART NO	REFERENCE NO	FIGURE NO
6773610	10	VIII	6774048	8	V
6773611	7	VII	6774092	5	XIII
6773616	19	XIII	6774106	8	III
6773617	3	VI	6774107	6	III
6773618	6, 35	XIII	6774123	12	IV
6773620	11	XIII	6774262	21	XIII
6773621	4	VI	6774342	14	X
6773622	13	XIII	6774343	2	VIII
6773639	7	V	6774343	14	IX
6773647	8	VI	6774344	4	VIII
6773648	19	VI	6774344	12	IX
6773649	2	VI	6774345	15	X
6773650	12, 14	XI	6774346	3	VIII
6773660	2	IV	6774346	15	IX
6773661	8	IV	6774347	5	VIII
6773667	7	IV	6774347	13	IX
6773669	2	V	6774889	Replaces 6773594	
6773670	7	IV	6774889	15	XIII
6773671	4	IV	8619650	26	V
6773677	10	XIII	8619652	24	V
6773678	10	XIII	9409011	19	V
6773689	33	V	9409033	23	XI
6773712	1	XIII	9409052	22	XI
6773713	42	XIII	9409231	18	IX
6773717	5	XIII	9409258	1	III
6773721	5	XIII	9409259	1	VI
6774007	4	III	9409514	9	IV
6774008	7	III	9409950	4	V
6774012	2	III	9414207	25	V
6774026	3	III	9416389	1	I
			9417600	14	XII



TT 2000 Hydro POWERSHIFT TRANSMISSION