PHASE 11
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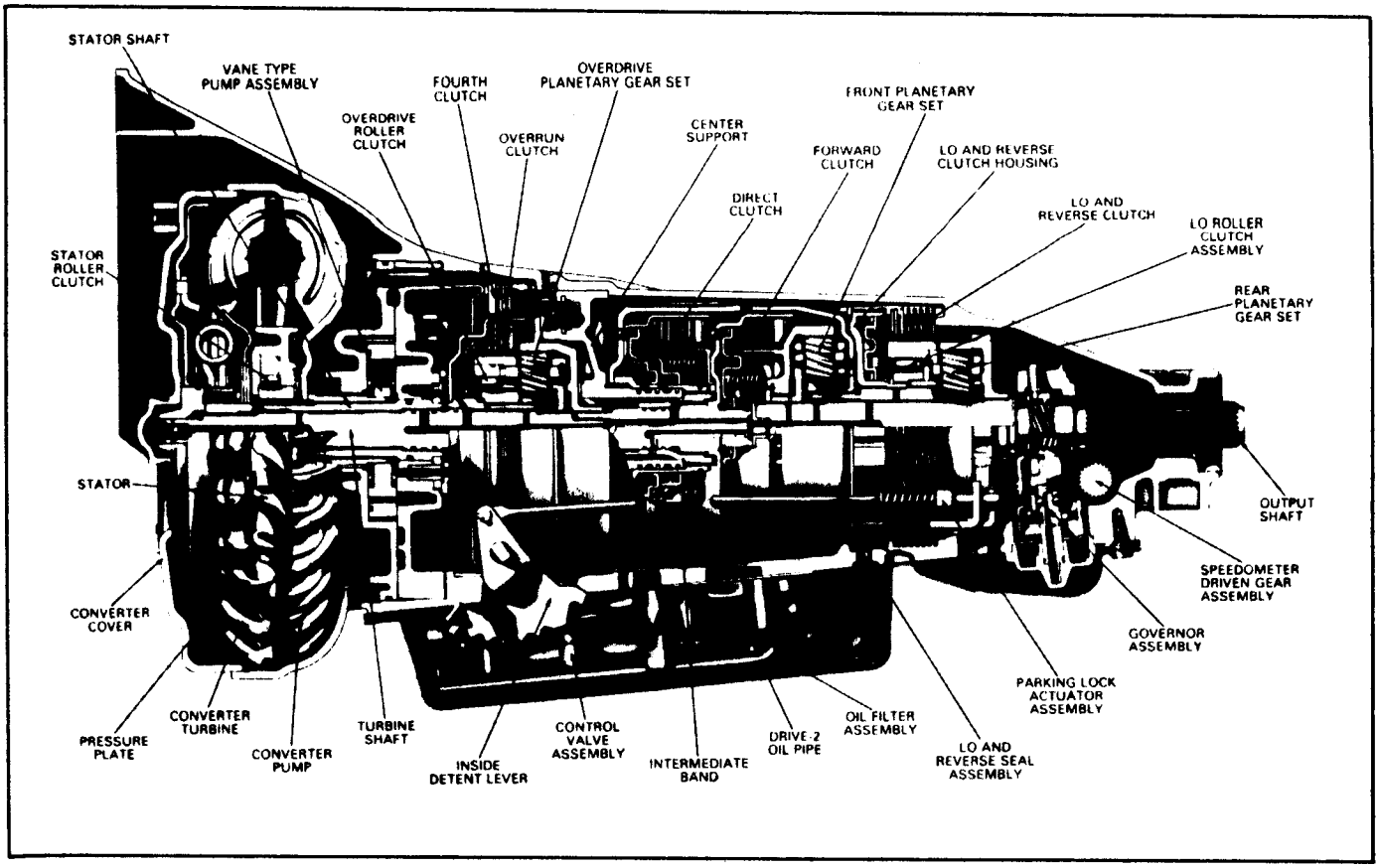
UNIVERSAL TECHNICAL INSTITUTE

PHASE 11: AUTOMATIC TRANSMISSIONS LIST OF LAB PROJECTS

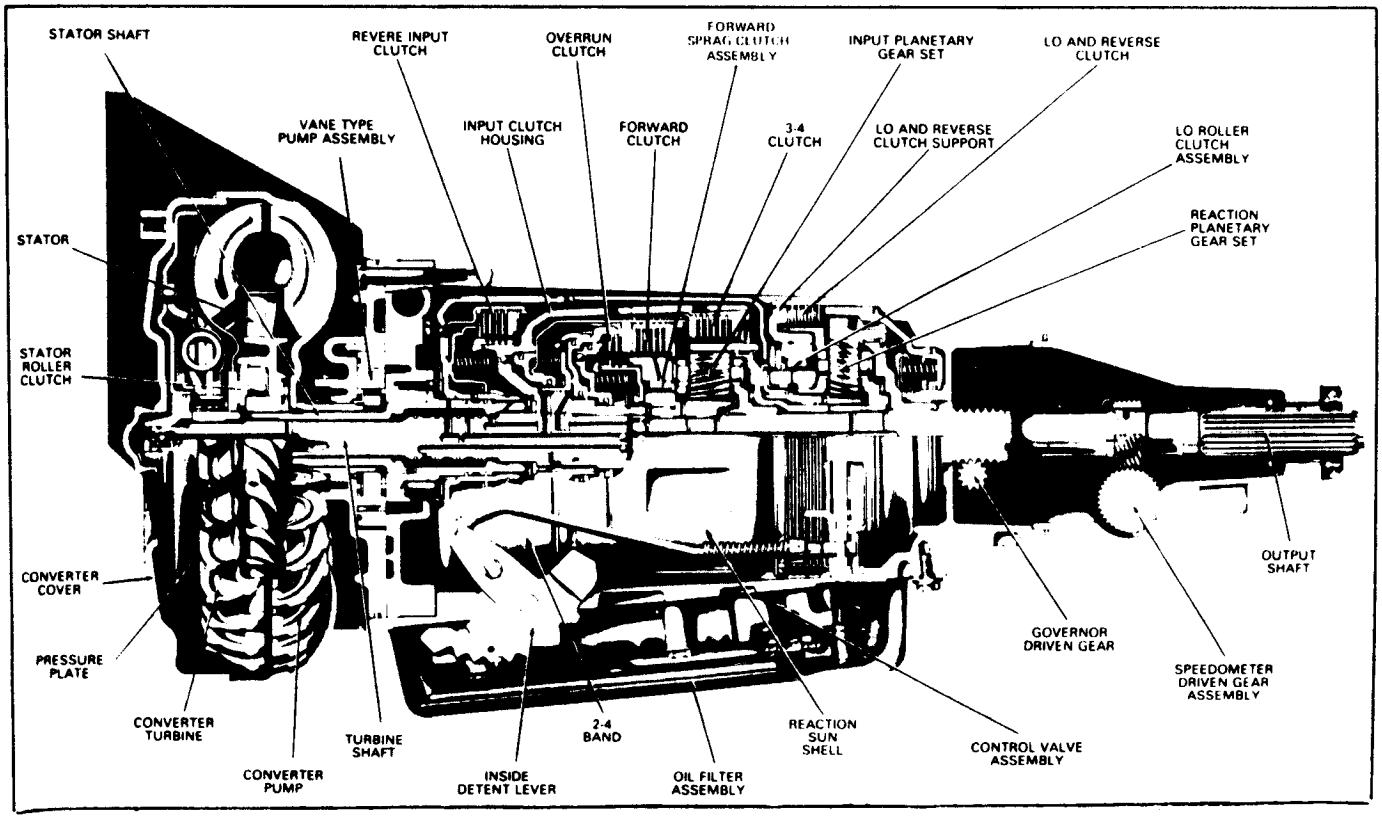
INSTRUCTOR_____ STUDENT'S NAME_____

TRANSMISSION MODEL	POWERGLIDE	IRON CASE FORD	TORQUEFLITE	TH-350	TH-400	C-4	C-6	JATCO	TH-200			
D & A												
FRONT BAND ADJUSTMENT												
REAR BAND ADJUSTMENT												
FRONT CLUTCH CLEARANCE												
REAR CLUTCH CLEARANCE												
END PLAY												
AIR TEST												

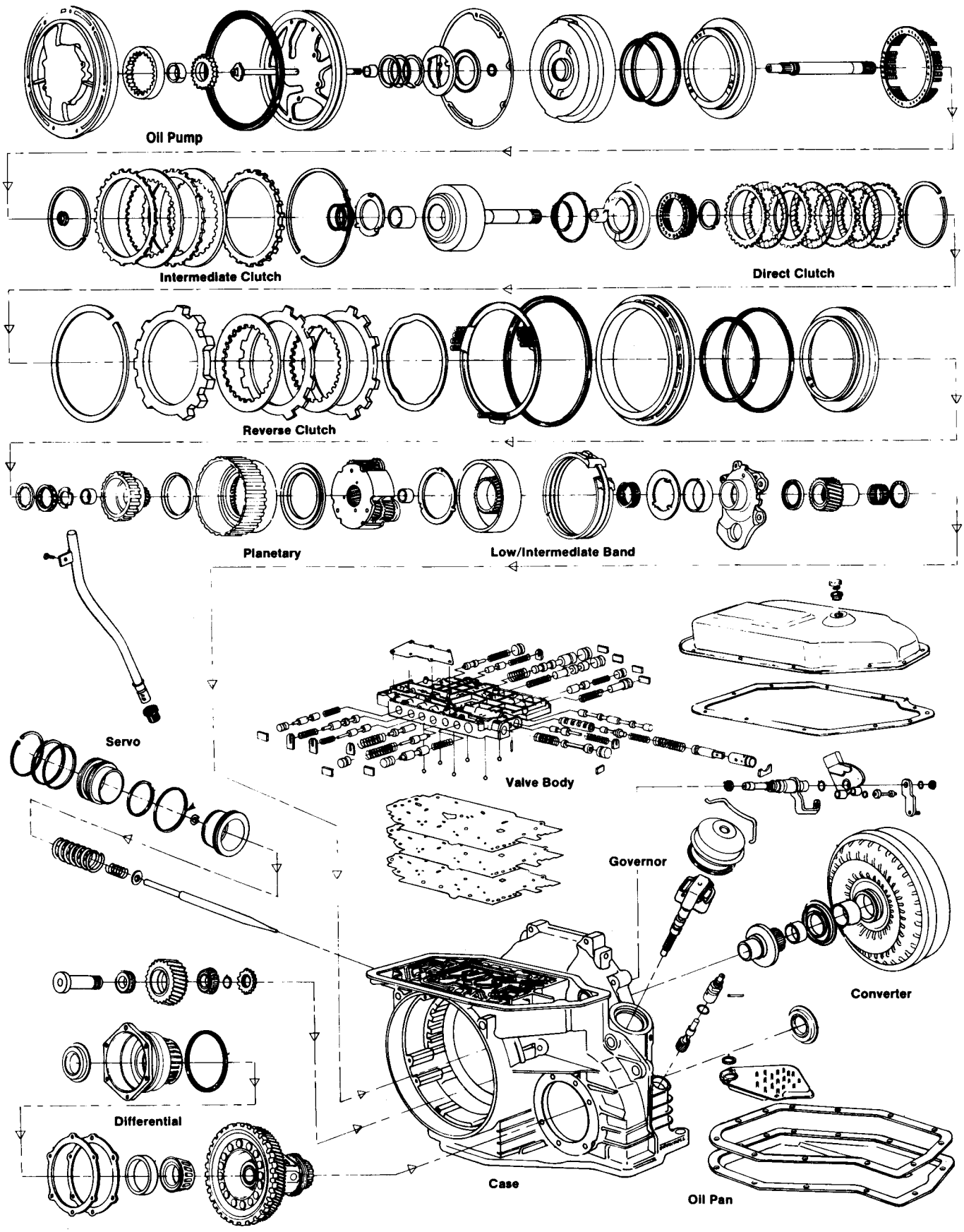
TH 2004R Cutaway



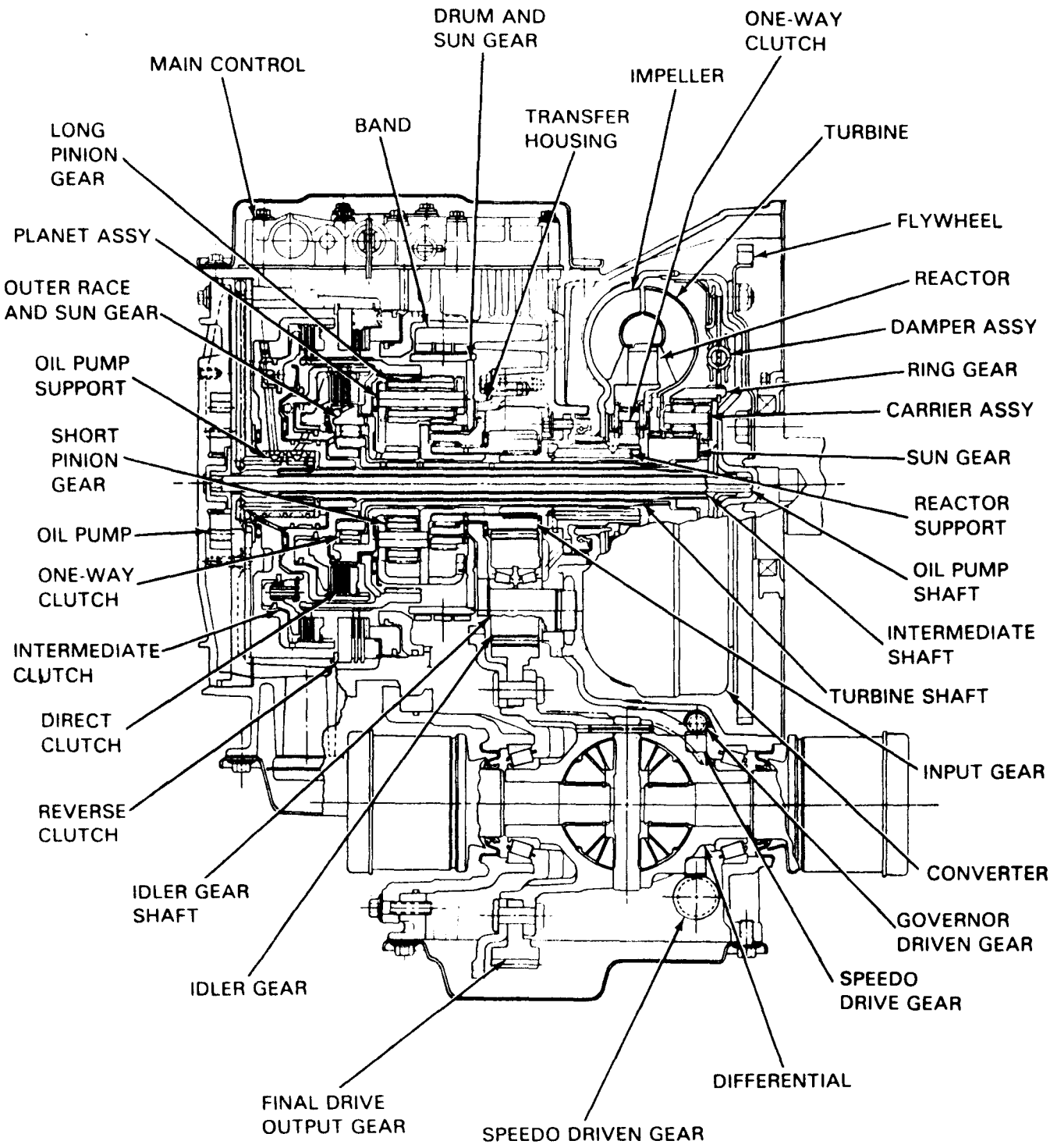
TH 700R4 Cutaway



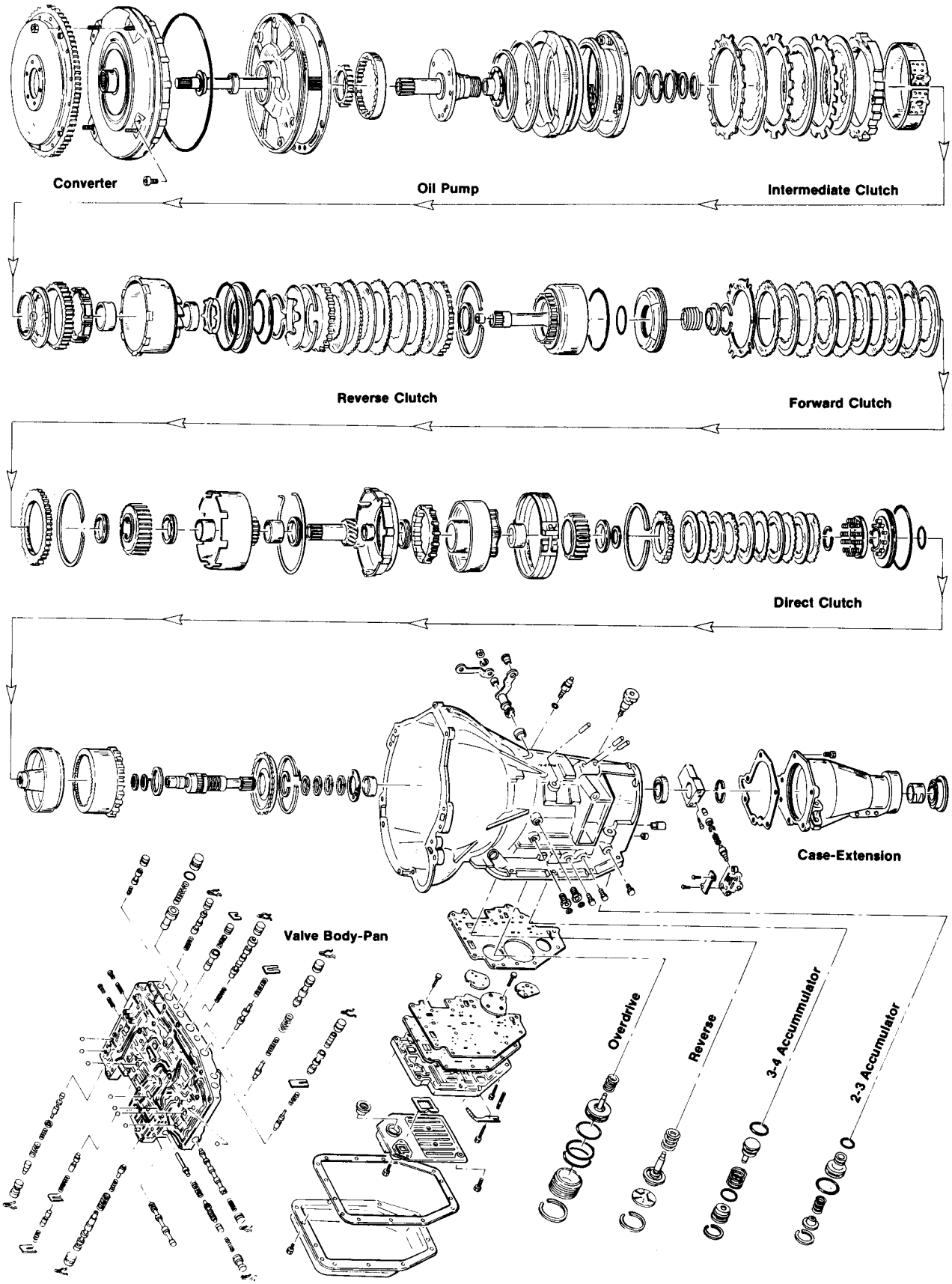
FORD ATX TRANSAXLE



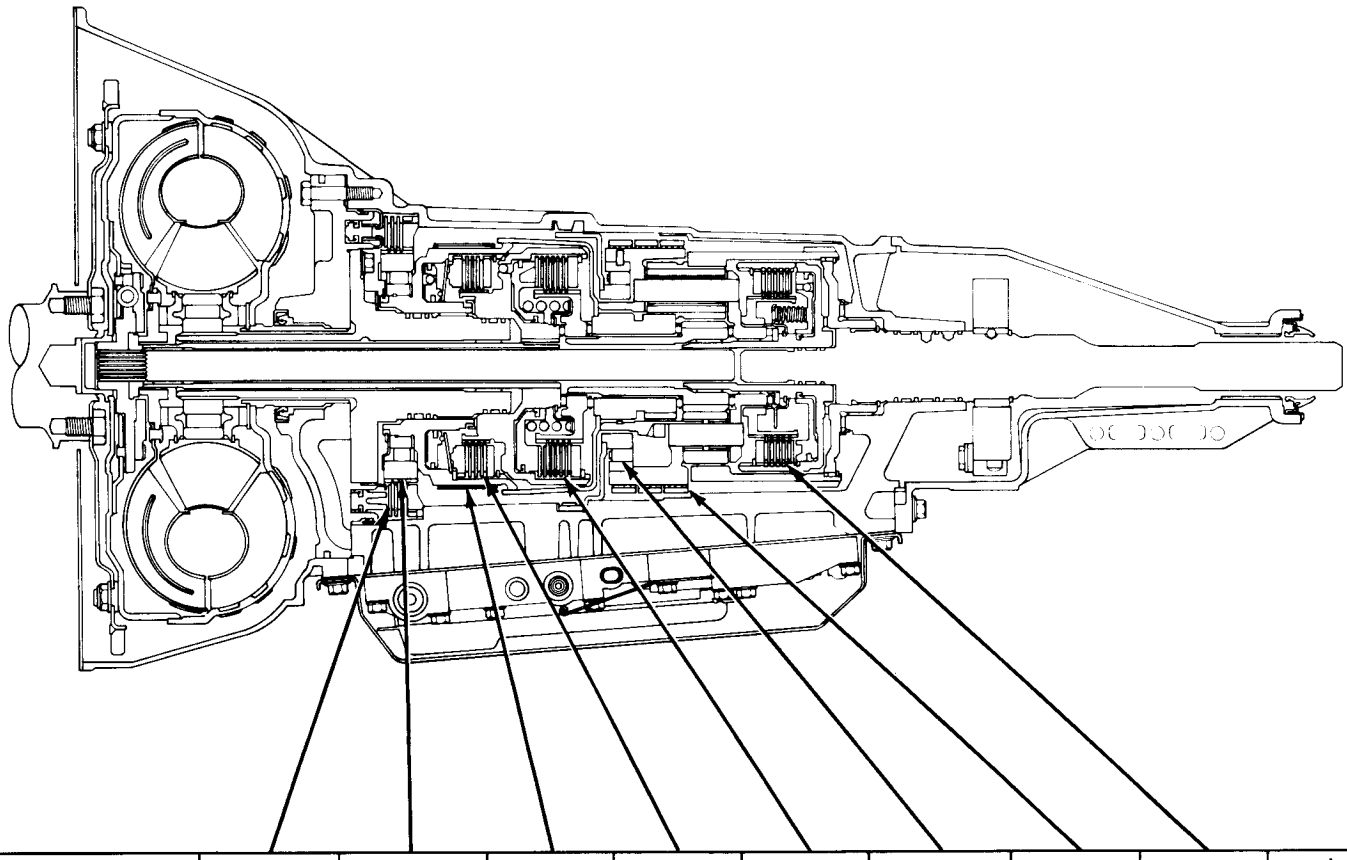
FORD ATX TRANSAXLE



AOD BLOW UP

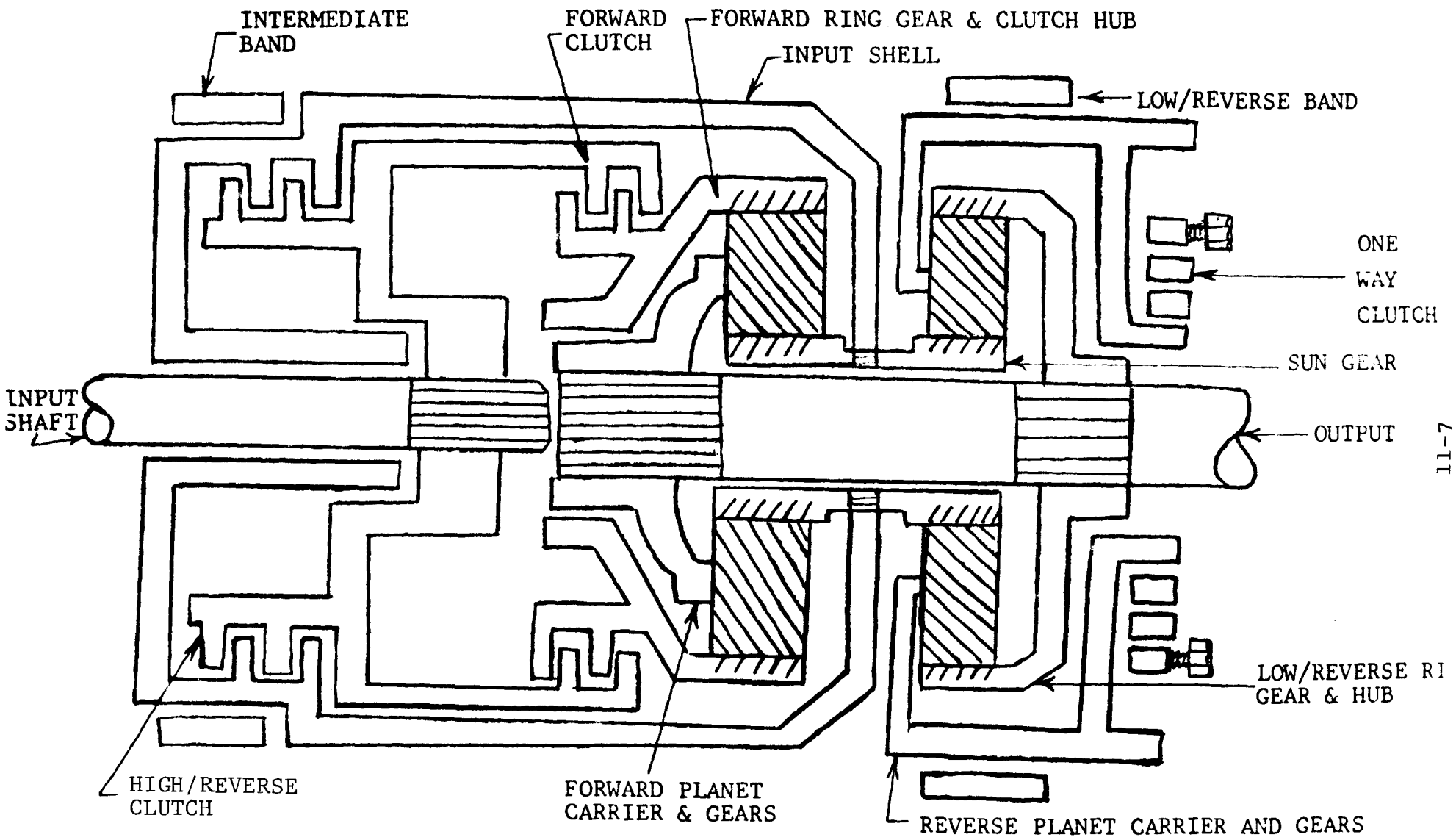

Converter
Oil Pump
Intermediate Clutch
Reverse Clutch
Forward Clutch
Direct Clutch
Case-Extension
Valve Body-Pan
Overdrive
Reverse
3-4 Accumulator
2-3 Accumulator

SUMMARY OF CLUTCHES AND BAND OPERATION



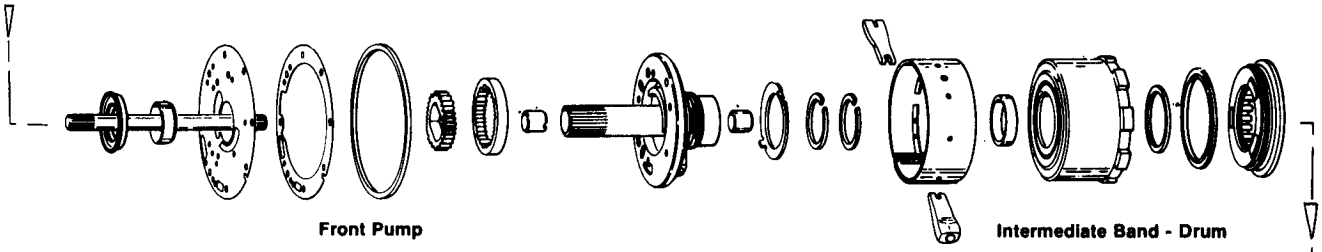
Gear	Intermediate Friction Clutch	Intermediate Roller Clutch	Overdrive Band	Reverse Clutch	Forward Clutch	Planetary (Low) One-Way Clutch	Low and Reverse Band	Direct Clutch	* Gear Ratio
1 Range Low					APPLIED	HOLDING	APPLIED		2.4-to-1
O/D and 3 Range Low					APPLIED	HOLDING			2.4-to-1
Second (Intermediate)	APPLIED	HOLDING			APPLIED	OVERRUNS			1.467-to-1
Third (Direct)	APPLIED	OVERRUNS			APPLIED	OVERRUNS		APPLIED	1-to-1
Fourth (Overdrive)	APPLIED		APPLIED			OVERRUNS		APPLIED	0.667-to-1
Reverse				APPLIED			APPLIED		2-to-1

*Not including torque converter reduction in 1st, Second and Reverse.


INTERMEDIATE BAND
FORWARD CLUTCH
FORWARD RING GEAR & CLUTCH HUB
INPUT SHELL
LOW/REVERSE BAND
ONE WAY CLUTCH
SUN GEAR
INPUT SHAFT
OUTPUT
LOW/REVERSE RI
GEAR & HUB
HIGH/REVERSE CLUTCH
FORWARD PLANET CARRIER & GEARS
REVERSE PLANET CARRIER AND GEARS
11-7

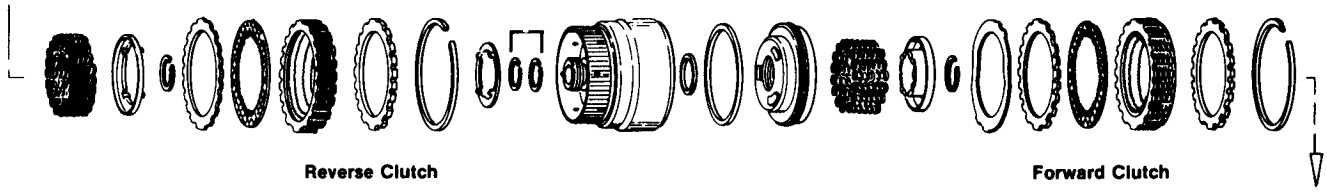
FORD C-3

FORD C-3 BLOW UP



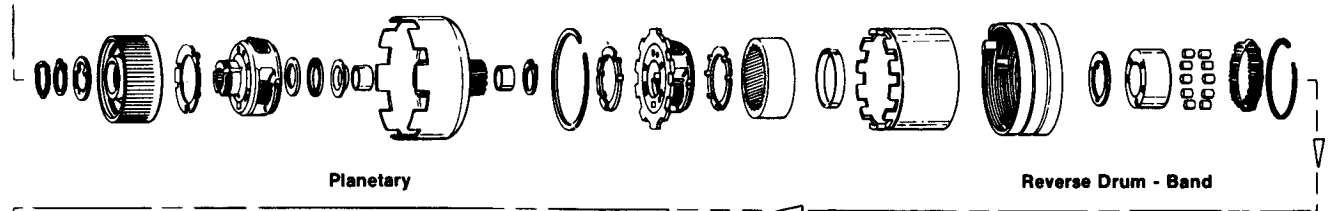
Front Pump

Intermediate Band - Drum



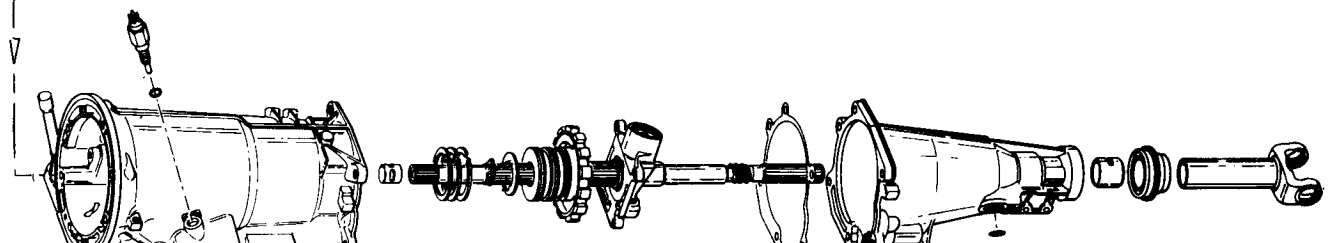
Reverse Clutch

Forward Clutch

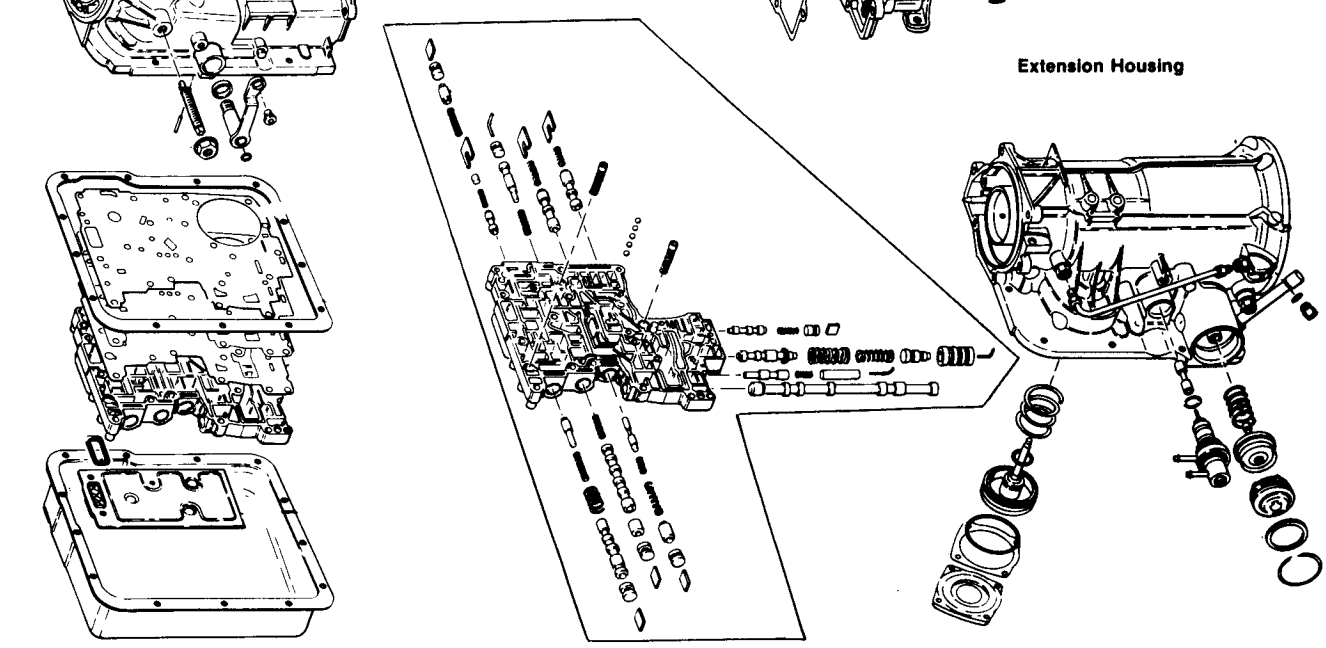


Planetary

Reverse Drum - Band

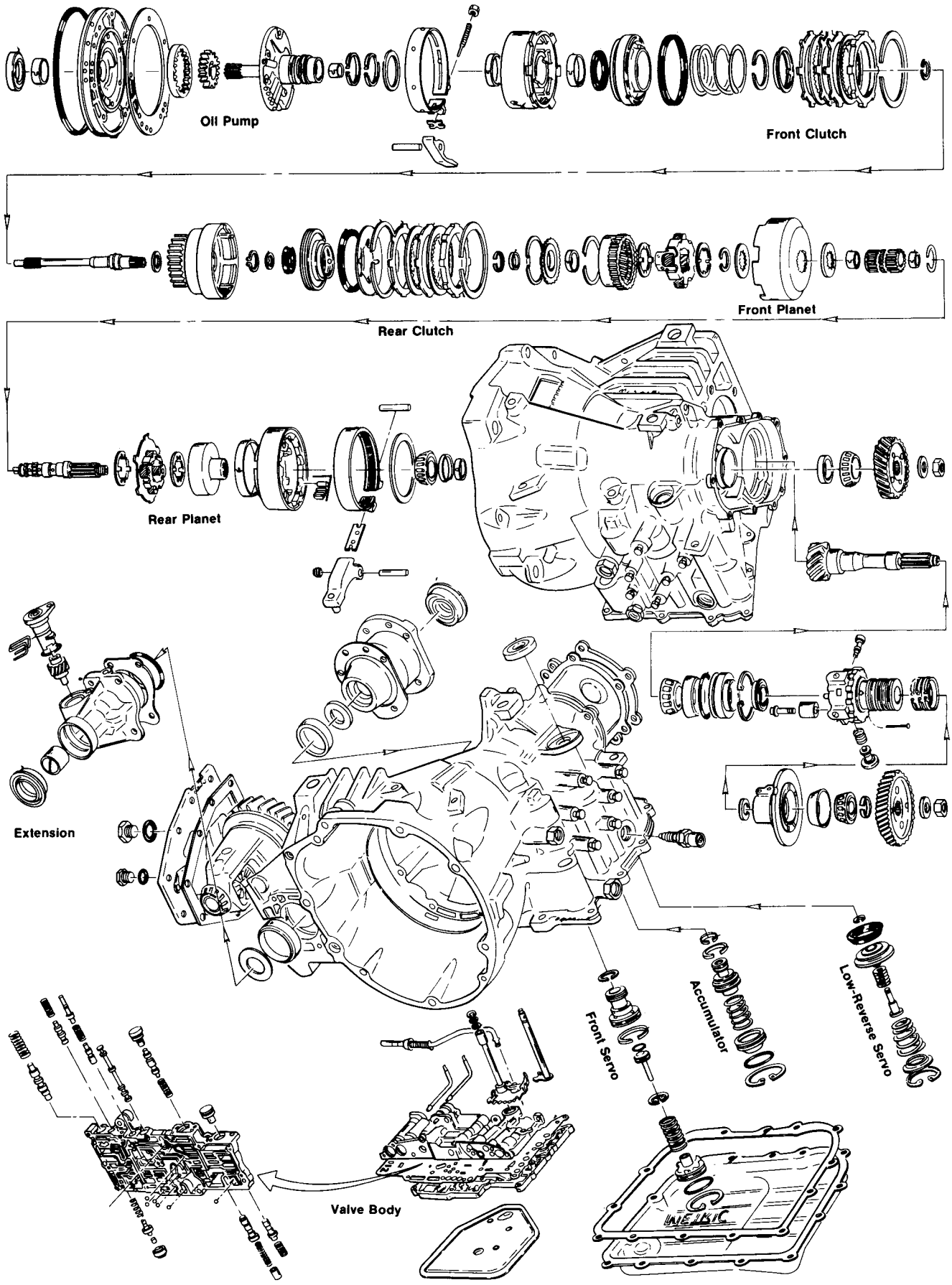


Extension Housing

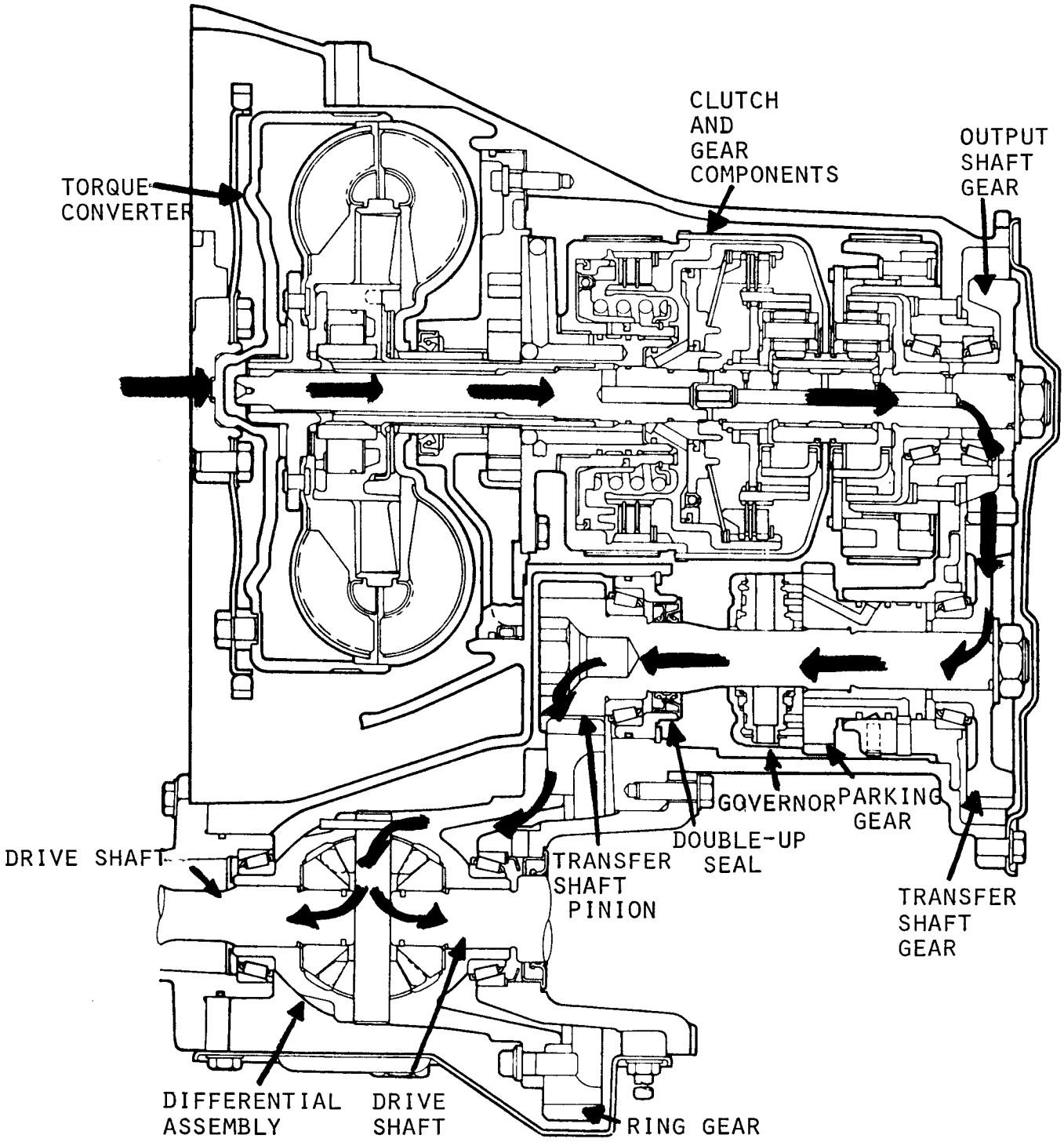


Case - Pan - Valve Body

CHRYSLER FWD BLOW UP



TORQUEFLITE A404, 413, 470



TRANSMISSION IDENTIFIER

GENERAL MOTORS CARS

How to Identify 2 & 3 Speed Transmissions

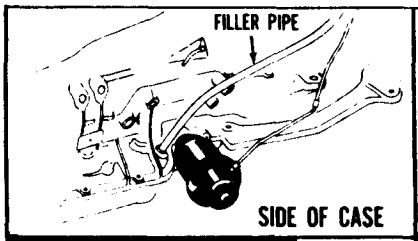
Shift Selector Will Tell

YEAR	CAR	
1964-69	Buick, Oldsmobile & Pontiac	300
1964-73	Chevrolet, all	POWERGLIDE

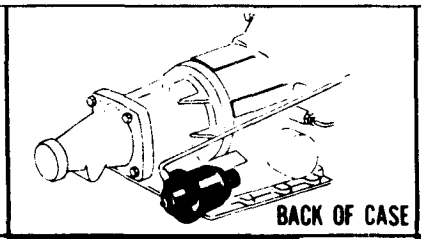
2 Speed — P R N D I — 2 POSITIONS

3 Speed — P R N D 1 1 — 3 POSITIONS

Modulator Location Will Tell



GM400

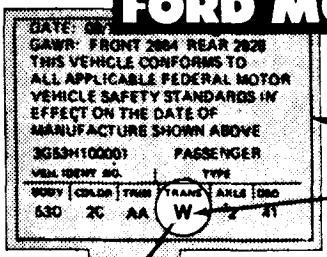


GM350

TH-200 HAS NO MODULATOR

GM200

FORD MOTORS CARS



TRANSMISSION IDENTIFIER

Certification label is attached to driver's door or door post.

Match transmission letter or number code to required filter and modulator listing.

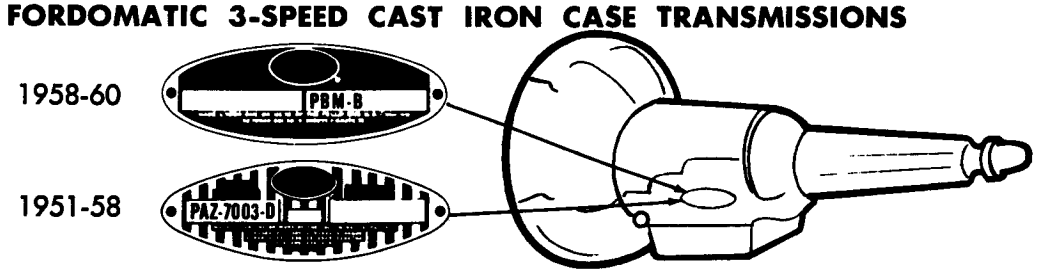
6 W	FORD C-4 TRANSMISSION
V	FORD C-3 TRANSMISSION
7 X	FORD FX & FMX TRANSMISSIONS
Y	FORD MX TRANSMISSION
4 Z U	FORD C-6 TRANSMISSION

NAME PLATE LOCATIONS

For Ford Products

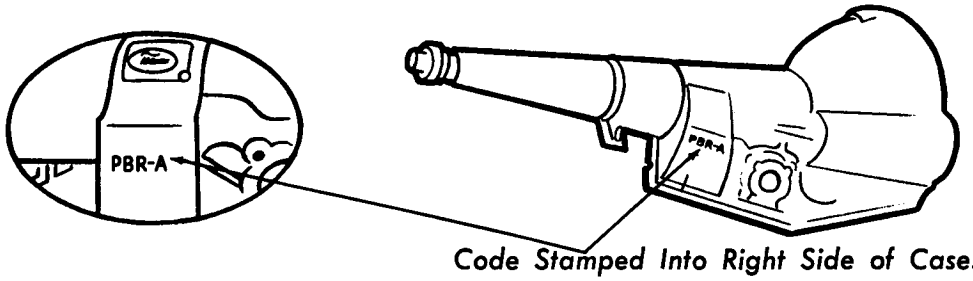
The Ford Motor Co. has made a great number of changes in the Fordomatic 3-Speed, 2-Speed, C-4 and C-6 Dual Range Transmissions. To order the correct part for any car manufactured by Ford it is essential that the transmission code which identifies these changes be known. The Code is found on the name plate.

FORDOMATIC 3-SPEED CAST IRON CASE TRANSMISSIONS



Name Plate on Left Side of Transmission Case.

FORDOMATIC 2-SPEED TRANSMISSIONS 1959-60

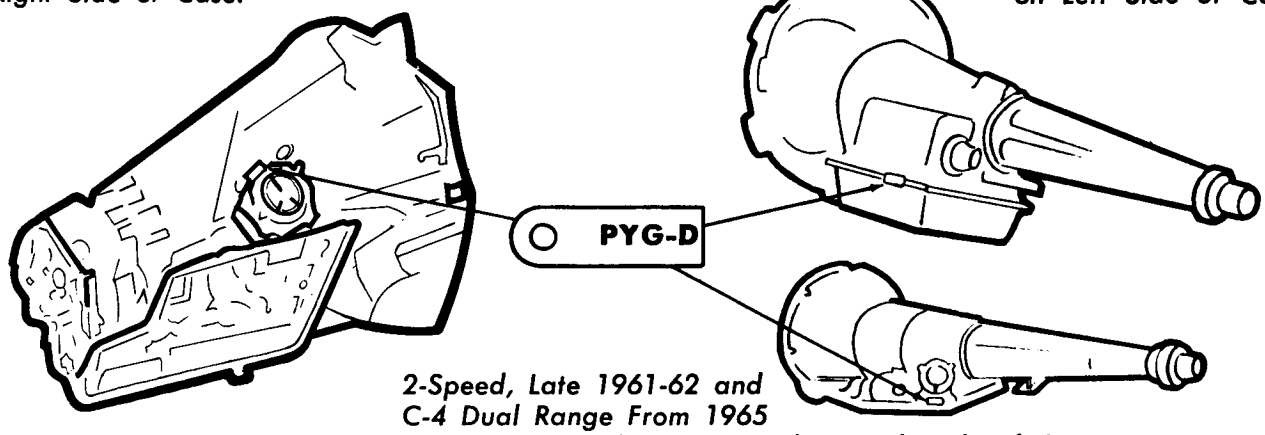


Code Stamped Into Right Side of Case.

2-SPEED FROM 1961
and
C-4 DUAL RANGE and C-6 DUAL RANGE FROM 1965

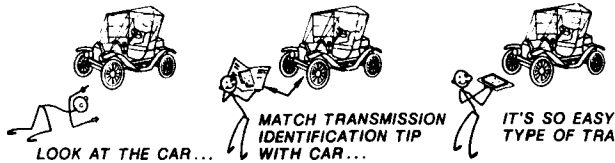
C-6 Dual Range From 1966 on Tag Attached to Servo Bolt on Right Side of Case.

2-Speed, Early 1961 on Tag Attached to Oil Pan Bolt on Left Side of Case.

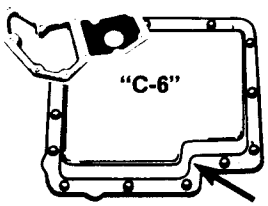


2-Speed, Late 1961-62 and C-4 Dual Range From 1965 on Tag Attached to Servo Bolt on Left Side of Case.

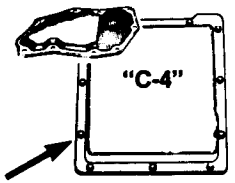
know the transmission . . .



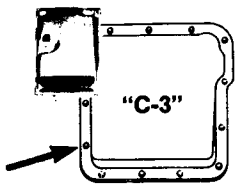
FORD MOTORS CARS



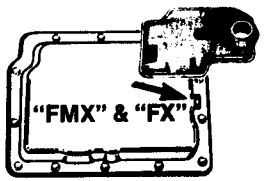
Tip: The rear edge of the pan is "S" shaped.



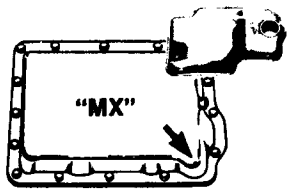
Tip: There are 11 pan bolts.



Tip: There are 13 pan bolts.

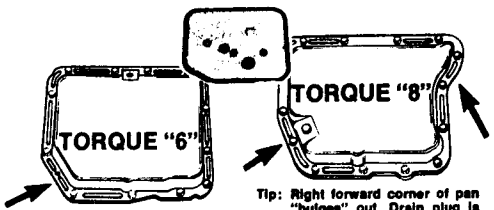


Tip: 1963-65 models have filler tube into pan. Models after 1968 filler tube into case.



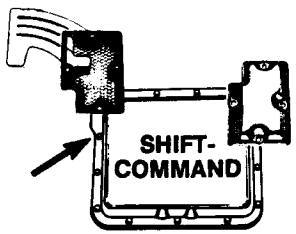
Tip: Pan has a "bulge" at right (passenger side) rear.

AMERICAN MOTORS CARS



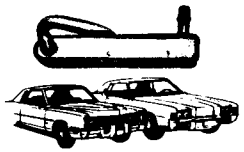
Tip: Pan has the left (driver) rear corner cut off.

Tip: Right forward corner of pan "bulges" out. Drain plug is on left (driver) rear side of pan.

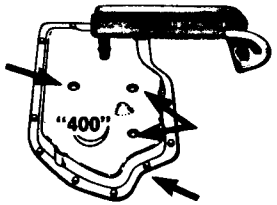


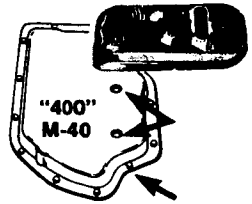
Tip: Left (driver) side of pan has a "bulge"

GENERAL MOTORS CARS

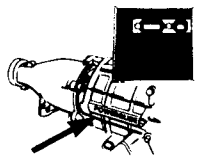


Tip: Used only on front wheel drive Cadillac and Oldsmobile.

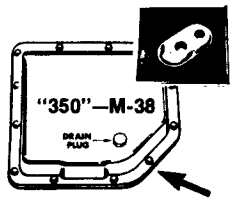




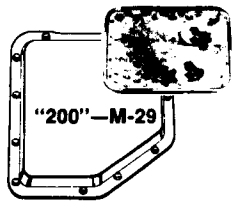
Tip: The right (passenger) side of the oil pan of both models is "S" shaped. 1964 to 1967 have 3 "dimples." Models after 1968, the pan has 2 "dimples."



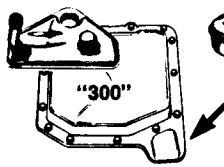
Tip: The name "POWERGLIDE" is embossed on the case.



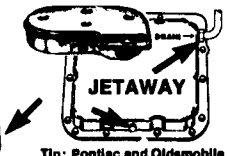
Tip: Right (passenger) side of pan looks like it has been cut off.



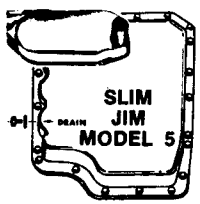
Tip: Has no Modulator.



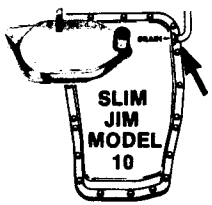
Tip: The pan has a "Tail" on the right (passenger) side.



Tip: Pontiac and Oldsmobile have filler tube going into pan at right front. Cadillac has a drain plug at rear.

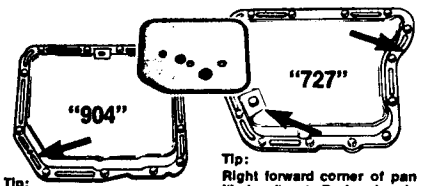


Tip: Used on 1961-63 F-85 Olds.



Tip: The filler tube is on the right (passenger) side.

CHRYSLER MOTORS CARS



Tip: Pan has the left (driver) rear corner cut off.

Tip: Right forward corner of pan "bulges" out. Drain plug is on left (driver) rear side of pan.

AUTOMATIC TRANSMISSIONS DIAGNOSIS CHECK SHEET

R.O. _____ Trans. _____

Engine _____

Code on Diagnosis Wheel	Check/Test	Remarks

☐ B — TRANSMISSION FLUID
1. Level _____ _____
2. Condition _____ _____

☐ C — ENGINE
Idle _____ _____
Power _____ _____

☐ D — EGR SYSTEM

☐ E — LINKAGE
Downshift _____ _____
Manual _____ _____

☐ F — SHIFT TESTS

Throttle Opening	Range	Shift	Shift Points (MPH) Record Actual	Record Spec.
Minimum (Above 12" Vacuum)	D	1-2		
	D	2-3		
	D	3-1		
	1	2-1		
To Detent (Torque Demand)	D	1-2		
	D	2-3		
		3-2		
Thru Detent (wide open Throttle)	D	1-2		
	D	2-3		
	D	3-2		
	D	2-1 or 3-1		

☐ G — PRESSURE TEST

Engine RPM	Manifold Vacuum In-HG	Throttle	Range	PSI Record Actual	Record Spec.
Idle	Above 12	Closed	P		
			N		
			D		
			2		
			1		
			R		
As Required	10	As Required	D,2,1		
As Required	Below 3	Wide Open	D		
			2		
			1		
			R		

Results _____

_____

_____

☐ H — STALL TEST

Range	Specified Engine RPM	Record Actual Engine RPM
D		
2		
1		
R		

Results _____

_____

☐ I — GOVERNOR TEST
Cutback Speed (C3, C4, C6, JATCO)
10" Vacuum _____ MPH _____
0-2" Vacuum _____ MPH _____
Pressure at MPH (FMX)
10 _____ PSI _____
20 _____ PSI _____
30 _____ PSI _____

☐ J — LEAK TEST

CHECK THESE	OK	OIL/FLUID *(COLOR)
CONVERTER AREA		
OIL PAN GASKET		
FILLER TUBE/SEAL		
COOLER/CONNECTIONS		
LEVER SHAFT SEALS		
PRESSURE PORT PLUGS		
EXTENSION/CASE GASKET		
EXTENSION SEAL/BUSHING		
SPEEDOMETER ADAPTER		
SERVO COVERS		
AIR VENT		

*Color Codes		
	Auto. Trans.	Red
	Power Steering	Yellow-Green
	Engine Oil	Golden Brown

☐ K — VACUUM HOSE ROUTING
☐ L — BAND AND SERVO
1. Intermediate Band Adj.
2. Reverse Band Adj.
3. Polished, Glazed Band, Drum
☐ M — DRIVESHAFT, U-JOINTS, ENGINE MOUNTS
☐ P — VALVE BODY DIRTY, STICKING
☐ Q — INTERNAL LINKAGE
☐ R — VALVE BODY BOLT TORQUE
☐ S — AIR PRESSURE TEST
☐ T — MECHANICAL PARTS
☐ U — VERIFY PROBLEM
☐ V — VALVE BODY MOUNTING FACES
☐ W — SPEEDO DRIVEN GEAR
☐ X — VACUUM TO DIAPHRAGM
☐ Y — CHECK DIAPHRAGM FOR LEAKAGE

REFER TO DIAGNOSIS WHEEL OR TO CAR DIAGNOSIS MANUAL FOR ACTION TO TAKE ON ANY "NOT OK" CONDITION.

Automatic Transmission Band Adjustments

American Motors Shift-Command (1968-71)

FRONT BAND adjustment is inside trans case. Drain oil and remove pan. Insert ¼-in. spacer between adjusting screw and servo piston rod. Torque screw to 10 in.-lbs. and remove spacer. Adjusting screw has left-hand thread on M-11B and M-12 models.

REAR BAND adjustment is on upper side of case, and trans must be lowered for access in many cars. Be sure to open hood to prevent damage when lowering trans. Loosen lock nut, torque adjusting screw to 10 ft.-lbs. and back screw off ¾-turn (1¼ turns on M-11B and M-12). Hold screw and torque lock nut to 28 ft.-lbs.

American Motors Torque-Command (1972-76)

FRONT BAND adjustment is at lower left front on case. Back off lock nut 5 turns and torque screw to 72 in.-lbs. Back off adjusting screw 2 turns on 904/998, 2½ turns on 727. Hold screw and torque lock nut to 29 ft.-lbs. on '72-'73 trans, 35 ft.-lbs. on '74-'76 trans.

LOW/REVERSE BAND adjustment is inside case at right rear. Drain oil and remove pan. Loosen lock nut and torque adjusting screw to 72 in.-lbs. on all but late 1974-76 904 trans, which requires 42 in.-lbs. torque. Back off adjusting screw 2 turns on 727, 3¼ turns on 904 through early '74, 4 turns on 998 and 7 turns on 904 from late '74 on. Hold screw and torque lock nut to 35 ft.-lbs.

Chrysler Corp. TorqueFlite (1966-76)

FRONT BAND adjustment is the same as AMC Torque-Command. Adjusting screw is backed off as follows:

A-727 with 426/440 V-8 engines	**1½ turns**
A-727 with all other engines through 1970	**2 turns**
A-727 from 1971 on	**2½ turns**
A-904/A-904LA except 170-cu.-in. engine	**2 turns**
A-904 with 170-cu.-in. engine	**2¾ turns**

LOW/REVERSE BAND adjustment is the same as AMC Torque-Command. Adjusting screw is backed off as follows:

A-727	**2 turns**
A-904 with 318-cu.-in. engine	**4 turns**
A-904LA	**4 turns**
A-904 with 6-cyl., 1966-73	**3¼ turns**
A-904 with 6-cyl., 1974 on	**7 turns**

Ford Motor Co. C-3 (1974-76)

INTERMEDIATE BAND adjustment is on lower left of case near front. Disconnect downshift rod from lever, remove and discard lock nut. Replace with new nut and torque adjusting screw to 10 ft.-lbs. Back screw off 1½ turns, hold and torque lock nut to 35-45 ft.-lbs. Reconnect downshift rod.

Ford C-4/C-4S (1967-76)

INTERMEDIATE BAND location and adjustment are identical to C-3 above, except that adjusting screw is backed off 1¾ turns.

LOW/REVERSE BAND adjustment is on lower right of case near rear. Remove lock nut and discard. Install new lock nut, torque adjusting screw to 10 ft.-lbs. Back screw off 3 turns, hold and torque lock nut to 35-40 ft.-lbs.

Ford C-6 (1967-76)

INTERMEDIATE BAND location and adjustment are identical to C-3 above, but adjusting screw is backed off 1 turn on 1967-70 trans; 1½ turns on 1971 and later.

LOW/REVERSE BAND adjustment is on upper right of case. Loosen lock nut, torque adjusting screw to 10 ft.-lbs. and back screw off 1¼ turns. Hold screw and torque lock nut to 35-50 ft.-lbs.

Ford FMX (1967-76)

INTERMEDIATE BAND location and adjustment are identical to AMC Shift-Command. After removing spacer, turn adjusting screw ¾-turn; hold and torque to 20-25 ft.-lbs.

LOW/REVERSE BAND adjustment is on upper right of case. Some '69 and all earlier models are adjusted through an access hole in the floorboard; other '69's and later are adjusted from underneath the car. Loosen lock nut, torque adjusting screw to 10 ft.-lbs., back screw off 1½ turns, hold screw and torque lock nut to 35-40 ft.lbs. Certain '69 models have a recessed adjusting screw, indicating an internal adjustment. On them, drain oil and remove pan. Insert ¼-in. spacer between adjusting screw and servo piston rod. Torque screw to 24 in.-lbs. and back it off 1½ turns. Remove spacer, tighten screw 3 turns, hold and tighten lock nut snugly.

General Motors Chevrolet Powerglide (1967-73)

LOW BAND adjustment is on lower left of case. With selector in neutral position, remove protective cap and loosen lock nut ¼-turn. Torque adjusting screw to 70 in.-lbs. and back screw off 4 turns (3 turns if less than 6000 miles wear on band). Hold screw, torque lock nut to 15 ft.-lbs. and replace cap.

Chevrolet/Pontiac THM 250 (1974-76)

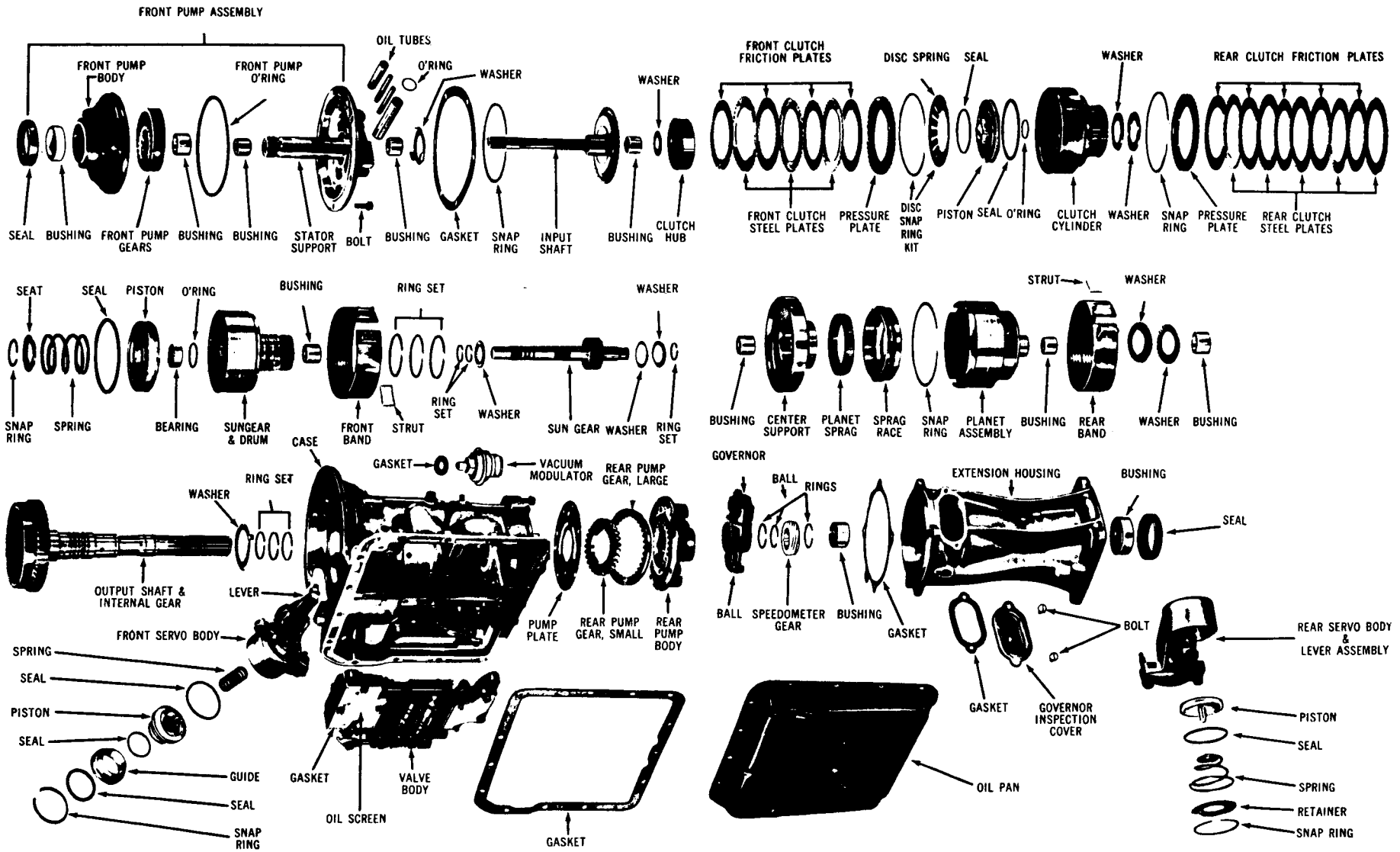
INTERMEDIATE BAND adjustment is on lower left of case. With selector in neutral position, loosen lock nut ¼- to ½- turn and torque adjusting screw to 30 in.-lbs. Back screw off 3 turns, hold and torque lock nut to 15 ft.-lbs.

Pontiac M35 (1970-73)

LOW BAND adjustment is identical to Chevrolet Powerglide above.

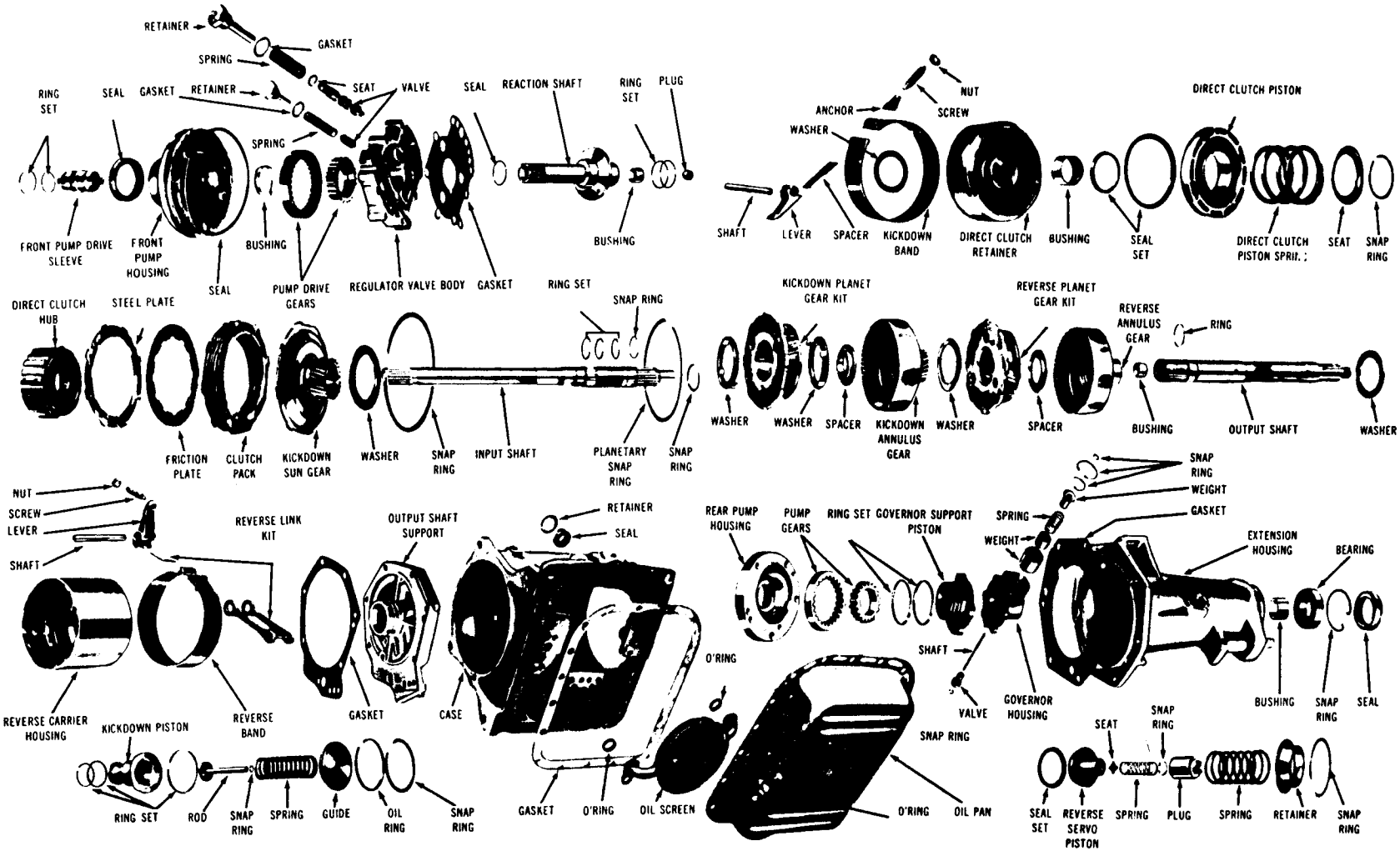
SHIFT-COMMAND AMC

ALUMINUM CASE



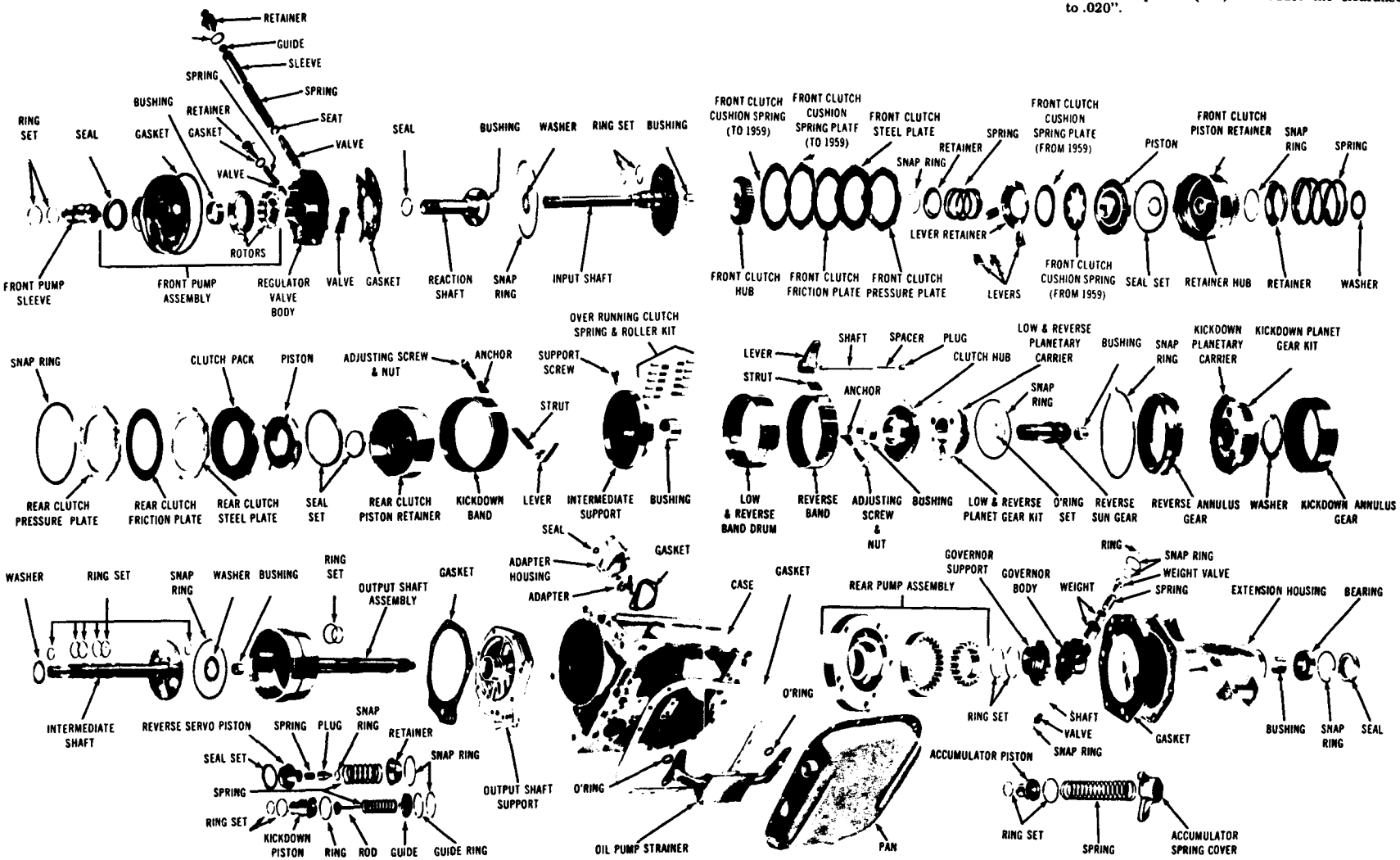
OUT OF PRODUCTION UNITS

POWERFLITE

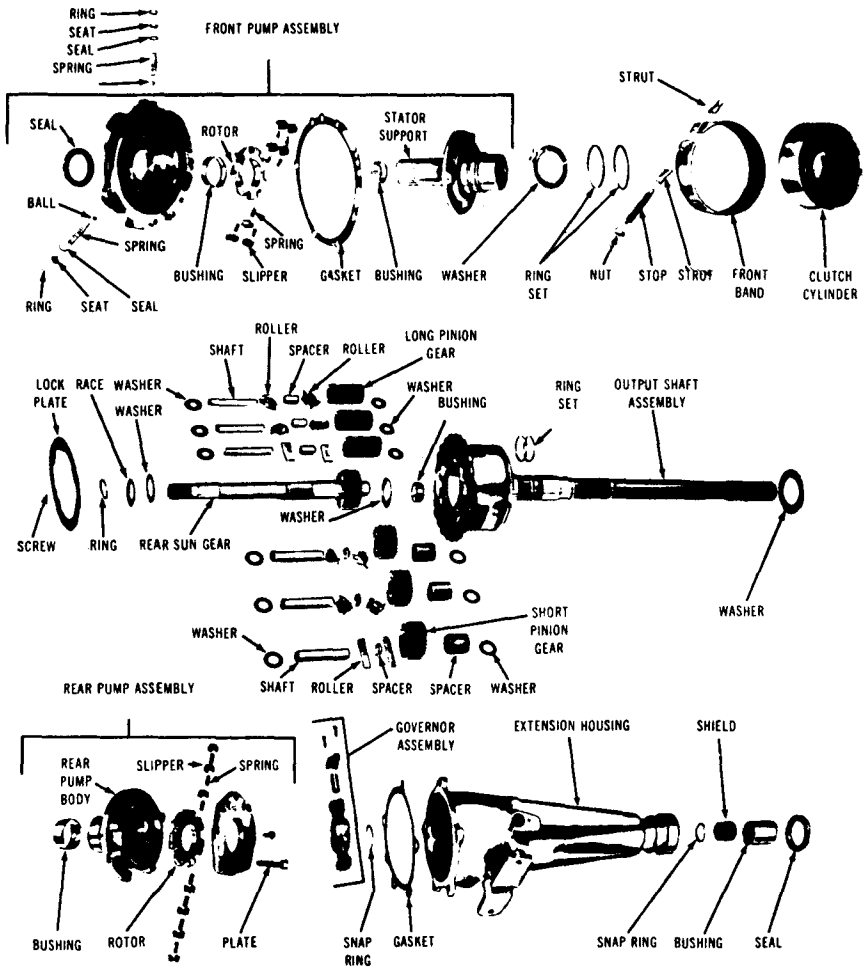

RETAINER
GASKET
SPRING
SEAT
VALVE
RING SET
SEAL
GASKET
RETAINER
SPRING
SEAL
REACTION SHAFT
RING SET
PLUG
BUSHING
FRONT PUMP DRIVE SLEEVE
FRONT PUMP HOUSING
SEAL
BUSHING
PUMP DRIVE GEARS
REGULATOR VALVE BODY
GASKET
NUT
ANCHOR
SCREW
WASHER
DIRECT CLUTCH PISTON
SHAFT
LEVER
SPACER
KICKDOWN BAND
DIRECT CLUTCH RETAINER
BUSHING
SEAL SET
DIRECT CLUTCH PISTON SPRING
SEAT
SNAP RING
DIRECT CLUTCH HUB
STEEL PLATE
FRICTION PLATE
CLUTCH PACK
KICKDOWN SUN GEAR
WASHER
SNAP RING
INPUT SHAFT
RING SET
SNAP RING
PLANETARY SNAP RING
SNAP RING
KICKDOWN PLANET GEAR KIT
REVERSE PLANET GEAR KIT
REVERSE ANNULUS GEAR
RING
WASHER
WASHER
SPACER
KICKDOWN ANNULUS GEAR
WASHER
SPACER
BUSHING
OUTPUT SHAFT
WASHER
NUT
SCREW
LEVER
SHAFT
REVERSE LINK KIT
OUTPUT SHAFT SUPPORT
RETAINER
SEAL
REAR PUMP HOUSING
PUMP GEARS
RING SET
GOVERNOR SUPPORT PISTON
SPRING
WEIGHT
SNAP RING
WEIGHT
GASKET
EXTENSION HOUSING
BEARING
REVERSE CARRIER HOUSING
KICKDOWN PISTON
REVERSE BAND
GASKET
CASE
O'RING
SHAFT
VALVE
GOVERNOR HOUSING
BUSHING
SNAP RING
SEAL
RING SET
ROD
SNAP RING
SPRING
GUIDE
OIL RING
SNAP RING
GASKET
O'RING
OIL SCREEN
SNAP RING
O'RING
OIL PAN
SEAT
SNAP RING
SEAL SET
REVERSE SERVO PISTON
SPRING
PLUG
SPRING
RETAINER
SNAP RING

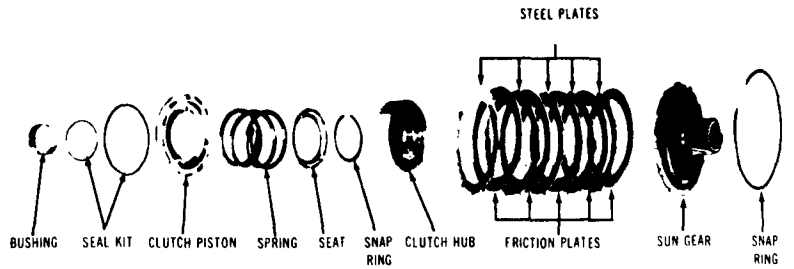
TORQUEFLITE Cast Iron Case

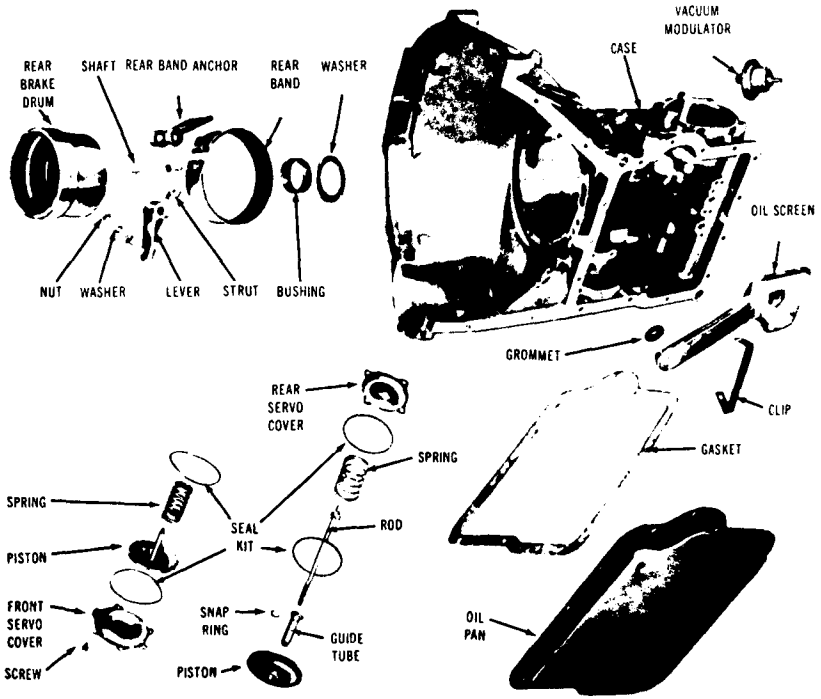
NOTE: CLUTCH PACK ASSEMBLY INSTRUCTIONS: — After assembly of the front clutch in the Piston Retainer Drum, measure the clearance between the bottom of the Spring Plate (C-4) and the top friction plate. If this measurement exceeds .040" use thicker friction plates (C-1) to reduce the clearance to .020".



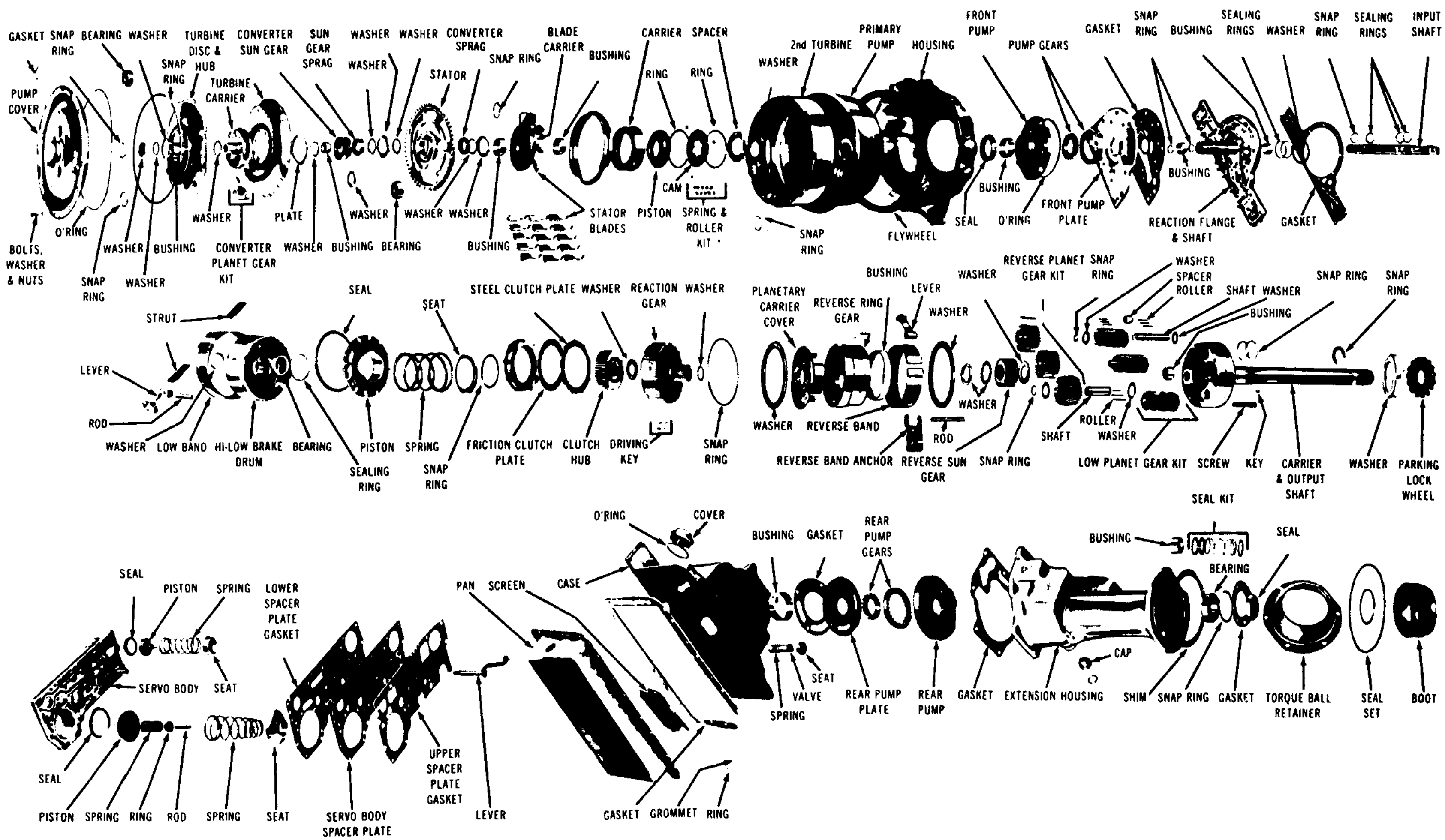
FORDOMATIC 2-SPEED



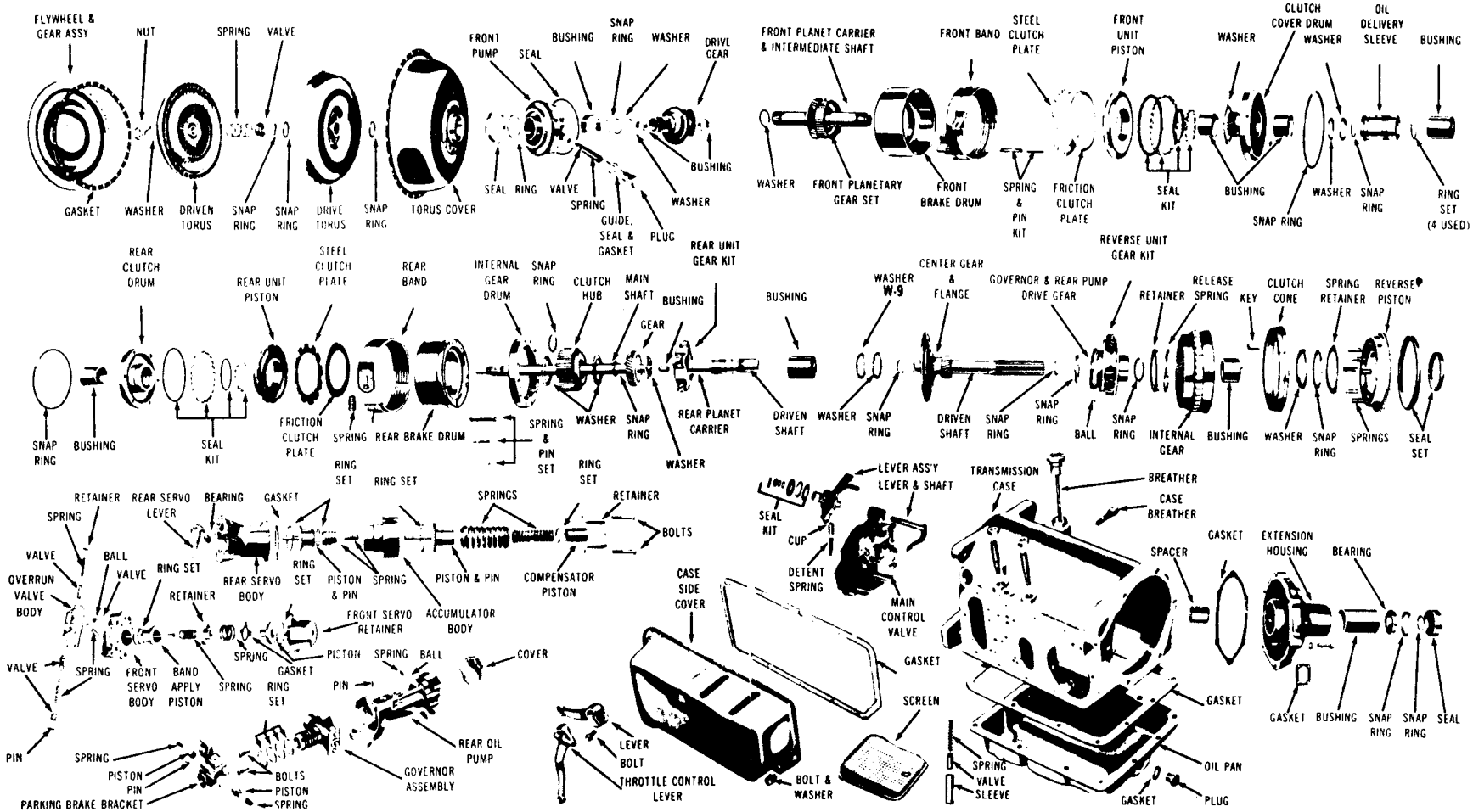




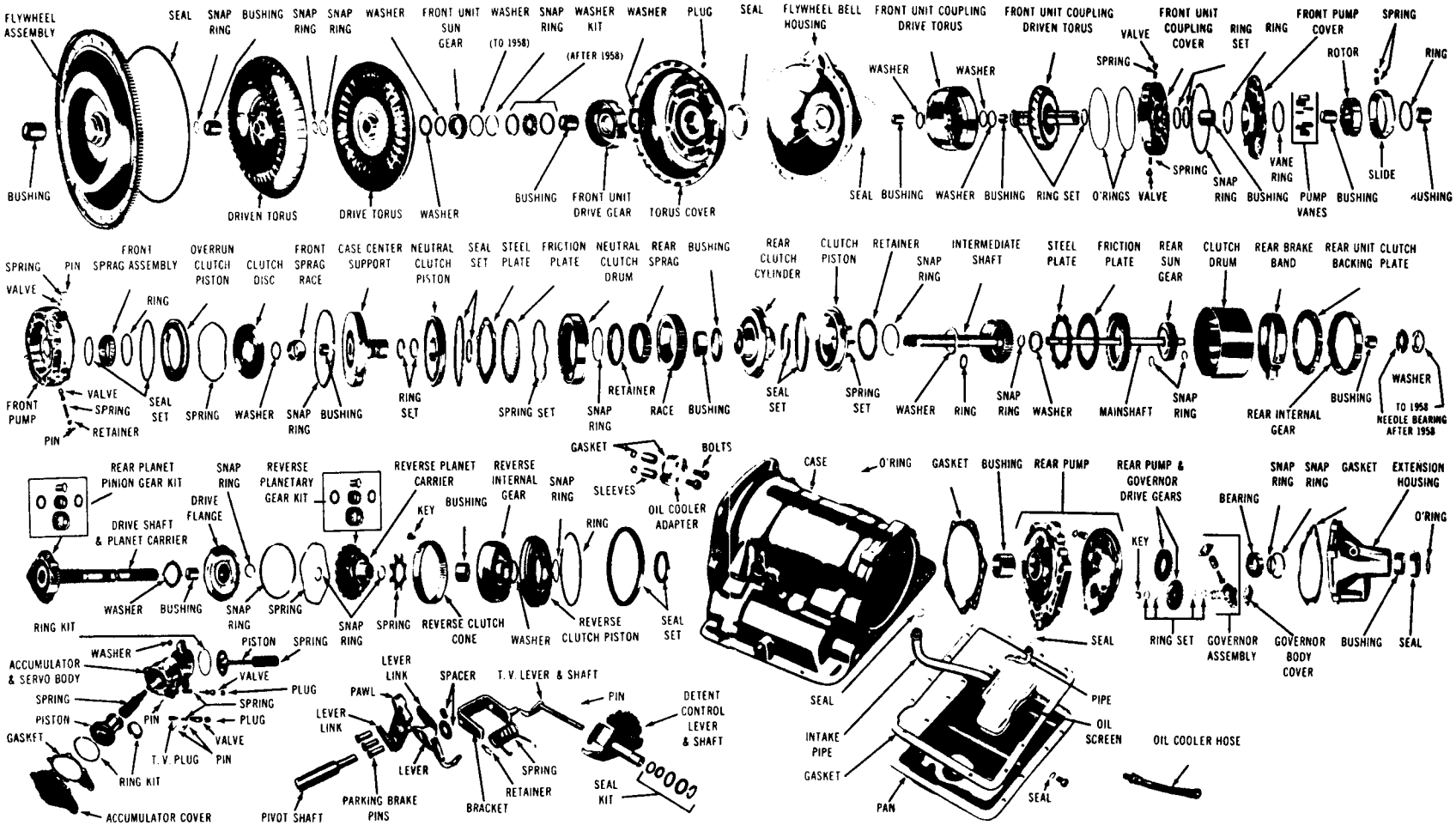
DYNAFLOW


GASKET
SNAP RING
BEARING
WASHER
TURBINE DISC & HUB
CONVERTER SUN GEAR
SUN GEAR SPRAG
WASHER
WASHER
CONVERTER SPRAG
BLADE CARRIER
CARRIER RING
SPACER RING
PRIMARY PUMP
2nd TURBINE
HOUSING
FRONT PUMP
GASKET
SNAP RING
BUSHING
SEALING RINGS
WASHER
SNAP RING
SEALING RINGS
INPUT SHAFT
PUMP COVER
SNAP RING
TURBINE CARRIER
WASHER
STATOR
SNAP RING
BUSHING
WASHER
PUMP GEARS
BOLTS, WASHER & NUTS
O'RING
SNAP RING
WASHER
WASHER
BUSHING
WASHER
CONVERTER PLANET GEAR KIT
PLATE
WASHER
BUSHING
BEARING
WASHER
WASHER
WASHER
BUSHING
STATOR BLADES
CAM
PISTON
SPRING & ROLLER KIT
SNAP RING
FLYWHEEL
SEAL
BUSHING
O'RING
FRONT PUMP PLATE
BUSHING
REACTION FLANGE & SHAFT
GASKET
STRUT
LEVER
ROD
WASHER
LOW BAND
HI-LOW BRAKE DRUM
BEARING
SEALING RING
SEAL
PISTON
SPRING
SNAP RING
SEAT
STEEL CLUTCH PLATE
WASHER
FRICTION CLUTCH PLATE
CLUTCH HUB
REACTION GEAR
DRIVING KEY
WASHER
SNAP RING
PLANETARY CARRIER COVER
REVERSE RING GEAR
BUSHING
LEVER
WASHER
WASHER
REVERSE BAND
ROD
REVERSE BAND ANCHOR
REVERSE SUN GEAR
WASHER
SNAP RING
REVERSE PLANET GEAR KIT
SNAP RING
WASHER
SPACER
ROLLER
SHAFT
WASHER
BUSHING
SHAFT
ROLLER
WASHER
LOW PLANET GEAR KIT
SCREW
KEY
CARRIER & OUTPUT SHAFT
SNAP RING
SNAP RING
WASHER
PARKING LOCK WHEEL
SEAL
PISTON
SPRING
LOWER SPACER PLATE GASKET
SERVO BODY
SEAT
SEAL
PISTON
SPRING
RING
ROD
SPRING
SEAT
SERVO BODY SPACER PLATE
UPPER SPACER PLATE GASKET
LEVER
PAN
SCREEN
CASE
GASKET
GROMMET
RING
O'RING
COVER
BUSHING
GASKET
REAR PUMP GEARS
SEAT
VALVE
SPRING
REAR PUMP PLATE
REAR PUMP
GASKET
EXTENSION HOUSING
CAP
SEAL KIT
BUSHING
BEARING
SEAL
SHIM
SNAP RING
GASKET
TORQUE BALL RETAINER
SEAL SET
BOOT

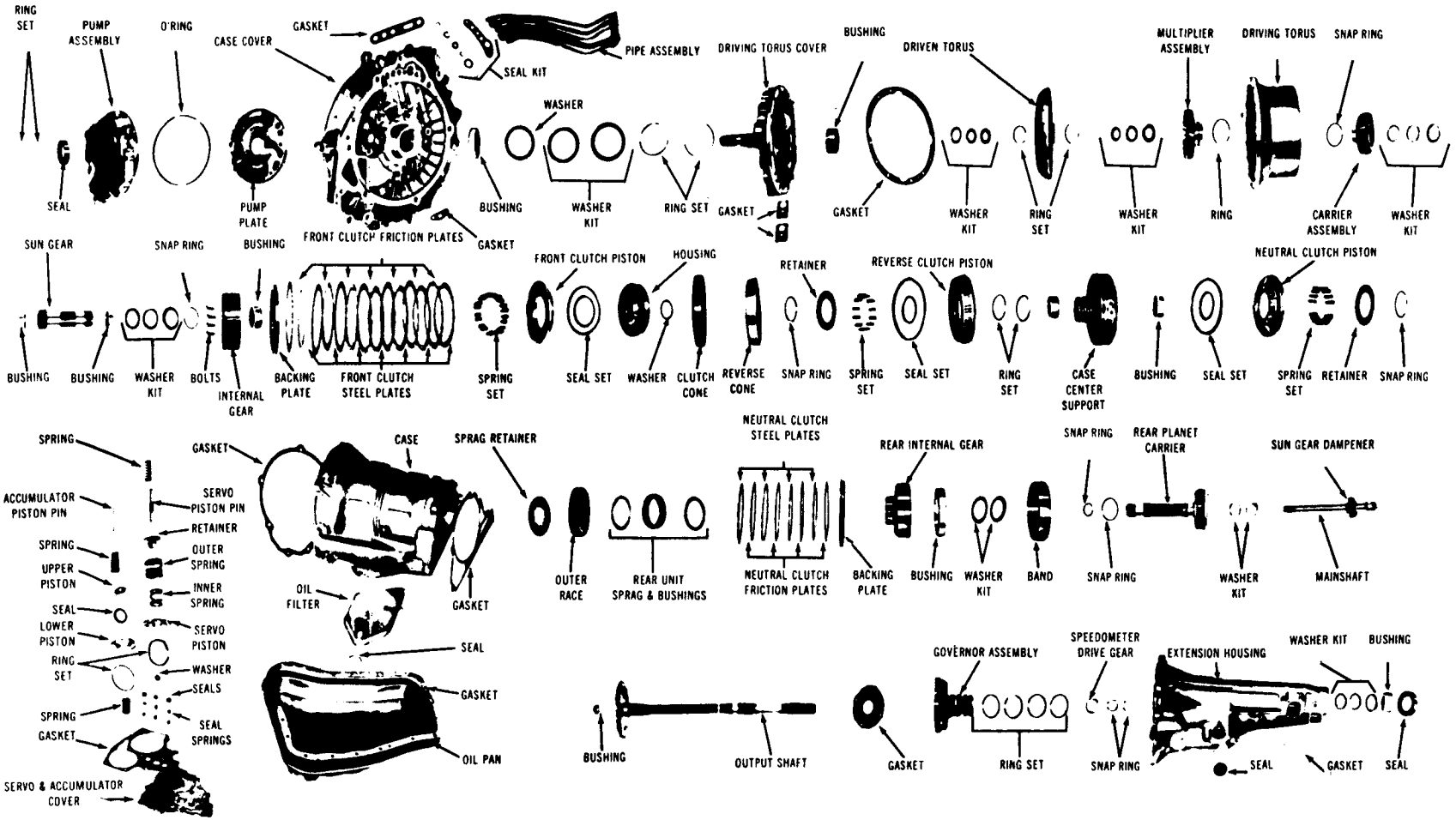
HYDRAMATIC


FLYWHEEL & GEAR ASSY
NUT
SPRING
VALVE
GASKET
WASHER
DRIVEN TORUS
SNAP RING
SNAP RING
DRIVE TORUS
SNAP RING
TORUS COVER
FRONT PUMP
SEAL
BUSHING
SNAP RING
WASHER
DRIVE GEAR
SEAL
RING
VALVE
SPRING
GUIDE, SEAL & GASKET
PLUG
WASHER
BUSHING
FRONT PLANET CARRIER & INTERMEDIATE SHAFT
FRONT BAND
STEEL CLUTCH PLATE
FRONT UNIT PISTON
WASHER
CLUTCH COVER DRUM
WASHER
OIL DELIVERY SLEEVE
BUSHING
WASHER
FRONT PLANETARY GEAR SET
FRONT BRAKE DRUM
SPRING & PIN KIT
FRICTION CLUTCH PLATE
SEAL KIT
BUSHING
SNAP RING
WASHER
SNAP RING
RING SET (4 USED)
REAR CLUTCH DRUM
REAR UNIT PISTON
STEEL CLUTCH PLATE
REAR BAND
INTERNAL GEAR DRUM
SNAP RING
CLUTCH HUB
MAIN SHAFT
GEAR
BUSHING
REAR UNIT GEAR KIT
REVERSE UNIT GEAR KIT
BUSHING
WASHER W-9
CENTER GEAR & FLANGE
GOVERNOR & REAR PUMP DRIVE GEAR
RETAINER
RELEASE SPRING
KEY
CLUTCH CONE
SPRING RETAINER
REVERSE PISTON
SNAP RING
BUSHING
SEAL KIT
FRICTION CLUTCH PLATE
SPRING
REAR BRAKE DRUM
SPRING & PIN SET
WASHER
SNAP RING
REAR PLANET CARRIER
DRIVEN SHAFT
WASHER
SNAP RING
DRIVEN SHAFT
SNAP RING
SNAP RING
BALL
SNAP RING
INTERNAL GEAR
BUSHING
WASHER
SNAP RING
SPRINGS
SEAL SET
RING SET
RING SET
WASHER
LEVER ASS'Y LEVER & SHAFT
SEAL KIT
CUP
DETENT SPRING
MAIN CONTROL VALVE
TRANSMISSION CASE
BREATHER
CASE BREATHER
RETAINER
SPRING
REAR SERVO LEVER
BEARING
GASKET
SPRINGS
RETAINER
BOLTS
VALVE
OVERRUN VALVE BODY
BALL
VALVE
RING SET
REAR SERVO BODY
RING SET
PISTON & PIN
SPRING
PISTON & PIN
COMPENSATOR PISTON
RETAINER
FRONT SERVO RETAINER
ACCUMULATOR BODY
CASE SIDE COVER
GASKET
SCREEN
SPACER
GASKET
EXTENSION HOUSING
BEARING
VALVE
SPRING
FRONT SERVO BODY
BAND APPLY PISTON
SPRING
RETAINER
SPRING
GASKET
RING SET
PISTON
SPRING
BALL
COVER
PIN
PIN
SPRING
PISTON
PIN
PARKING BRAKE BRACKET
BOLTS
PISTON
SPRING
GOVERNOR ASSEMBLY
REAR OIL PUMP
LEVER
BOLT
THROTTLE CONTROL LEVER
BOLT & WASHER
SPRING
VALVE SLEEVE
GASKET
OIL PAN
PLUG
GASKET
BUSHING
SNAP RING
SNAP RING
SEAL

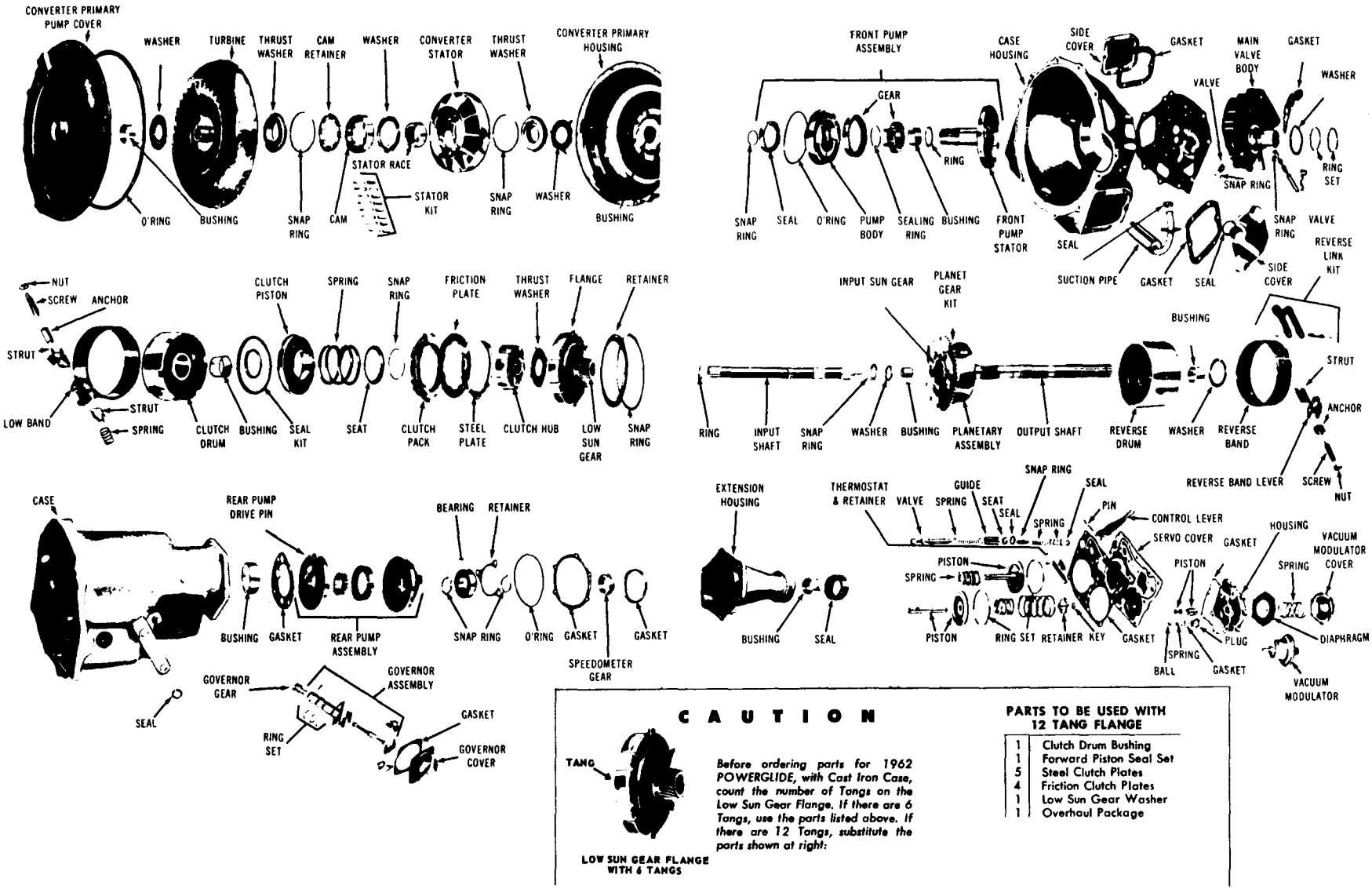
JETAWAY


FLYWHEEL ASSEMBLY
SEAL
SNAP RING
BUSHING
SNAP RING
SNAP RING
WASHER
FRONT UNIT SUN GEAR
WASHER
(TO 1958)
SNAP RING
WASHER KIT
(AFTER 1958)
WASHER
PLUG
SEAL
FLYWHEEL BELL HOUSING
FRONT UNIT COUPLING DRIVE TORUS
FRONT UNIT COUPLING DRIVEN TORUS
VALVE
FRONT UNIT COUPLING COVER
RING SET
RING
FRONT PUMP COVER
SPRING
ROTOR
RING
BUSHING
DRIVEN TORUS
DRIVE TORUS
WASHER
BUSHING
FRONT UNIT DRIVE GEAR
TORUS COVER
SEAL
BUSHING
WASHER
BUSHING
RING SET
O'RINGS
VALVE
SPRING
SNAP RING
BUSHING
VANE RING
PUMP VANES
BUSHING
SLIDE
BUSHING
SPRING
VALVE
PIN
FRONT SPRAG ASSEMBLY
OVERRUN CLUTCH PISTON
CLUTCH DISC
FRONT SPRAG RACE
CASE CENTER SUPPORT
NEUTRAL CLUTCH PISTON
SEAL SET
STEEL PLATE
FRICTION PLATE
NEUTRAL CLUTCH DRUM
REAR SPRAG
BUSHING
REAR CLUTCH CYLINDER
CLUTCH PISTON
RETAINER
SNAP RING
INTERMEDIATE SHAFT
STEEL PLATE
FRICTION PLATE
REAR SUN GEAR
CLUTCH DRUM
REAR BRAKE BAND
REAR UNIT CLUTCH BACKING PLATE
RING
FRONT PUMP
VALVE
SPRING
PIN
RETAINER
SEAL SET
SPRING
WASHER
SNAP RING
BUSHING
RING SET
SPRING SET
SNAP RING
RETAINER
RACE
BUSHING
SEAL SET
SPRING SET
WASHER
RING
SNAP RING
WASHER
MAINSHAFT
SNAP RING
REAR INTERNAL GEAR
BUSHING
WASHER
TO 1958 NEEDLE BEARING AFTER 1958
GASKET
BOLTS
SLEEVES
OIL COOLER ADAPTER
REAR PLANET PINION GEAR KIT
DRIVE SHAFT & PLANET CARRIER
WASHER
BUSHING
SNAP RING
DRIVE FLANGE
REVERSE PLANETARY GEAR KIT
SPRING
SNAP RING
REVERSE PLANET CARRIER
KEY
BUSHING
SPRING
REVERSE CLUTCH CONE
REVERSE INTERNAL GEAR
WASHER
SNAP RING
REVERSE CLUTCH PISTON
RING
SEAL SET
CASE
O'RING
GASKET
BUSHING
REAR PUMP
REAR PUMP & GOVERNOR DRIVE GEARS
SEAL
RING SET
GOVERNOR ASSEMBLY
GOVERNOR BODY COVER
BUSHING
SEAL
BEARING
SNAP RING
SNAP RING
GASKET
EXTENSION HOUSING
O'RING
KEY
RING KIT
ACCUMULATOR & SERVO BODY
WASHER
PISTON
SPRING
VALVE
PLUG
SPRING
PLUG
PIN
VALVE
PIN
T.V. PLUG
GASKET
RING KIT
ACCUMULATOR COVER
LEVER LINK
PAWL
LEVER LINK
LEVER
PARKING BRAKE PINS
PIVOT SHAFT
SPACER
T.V. LEVER & SHAFT
PIN
DETENT CONTROL LEVER & SHAFT
SPRING
RETAINER
BRACKET
SEAL KIT
SEAL
INTAKE PIPE
GASKET
PAN
PIPE
OIL SCREEN
SEAL
OIL COOLER HOSE

SLIM JIM


RING SET
PUMP ASSEMBLY
O'RING
CASE COVER
GASKET
SEAL KIT
PIPE ASSEMBLY
DRIVING TORUS COVER
BUSHING
DRIVEN TORUS
MULTIPLIER ASSEMBLY
DRIVING TORUS
SNAP RING
SEAL
PUMP PLATE
FRONT CLUTCH FRICTION PLATES
BUSHING
WASHER
WASHER KIT
RING SET
GASKET
GASKET
WASHER KIT
RING SET
WASHER KIT
RING
CARRIER ASSEMBLY
WASHER KIT
SUN GEAR
SNAP RING
BUSHING
FRONT CLUTCH PISTON
HOUSING
RETAINER
REVERSE CLUTCH PISTON
NEUTRAL CLUTCH PISTON
BUSHING
BUSHING
WASHER KIT
BOLTS
INTERNAL GEAR
BACKING PLATE
FRONT CLUTCH STEEL PLATES
SPRING SET
SEAL SET
WASHER
CLUTCH CONE
REVERSE CONE
SNAP RING
SPRING SET
SEAL SET
RING SET
CASE CENTER SUPPORT
BUSHING
SEAL SET
SPRING SET
RETAINER
SNAP RING
SPRING
GASKET
CASE
SPRAG RETAINER
NEUTRAL CLUTCH STEEL PLATES
REAR INTERNAL GEAR
SNAP RING
REAR PLANET CARRIER
SUN GEAR DAMPENER
ACCUMULATOR PISTON PIN
SERVO PISTON PIN
RETAINER
SPRING
OUTER SPRING
UPPER PISTON
INNER SPRING
SEAL
LOWER PISTON
SERVO PISTON
RING SET
WASHER
SEALS
SPRING
SEAL SPRINGS
GASKET
SERVO & ACCUMULATOR COVER
OIL FILTER
GASKET
SEAL
GASKET
OIL PAN
OUTER RACE
REAR UNIT SPRAG & BUSHINGS
NEUTRAL CLUTCH FRICTION PLATES
BACKING PLATE
BUSHING
WASHER KIT
BAND
SNAP RING
WASHER KIT
MAINSHAFT
BUSHING
OUTPUT SHAFT
GASKET
GOVERNOR ASSEMBLY
RING SET
SPEEDOMETER DRIVE GEAR
SNAP RING
EXTENSION HOUSING
WASHER KIT
BUSHING
SEAL
GASKET
SEAL

POWERGLIDE



CAUTION

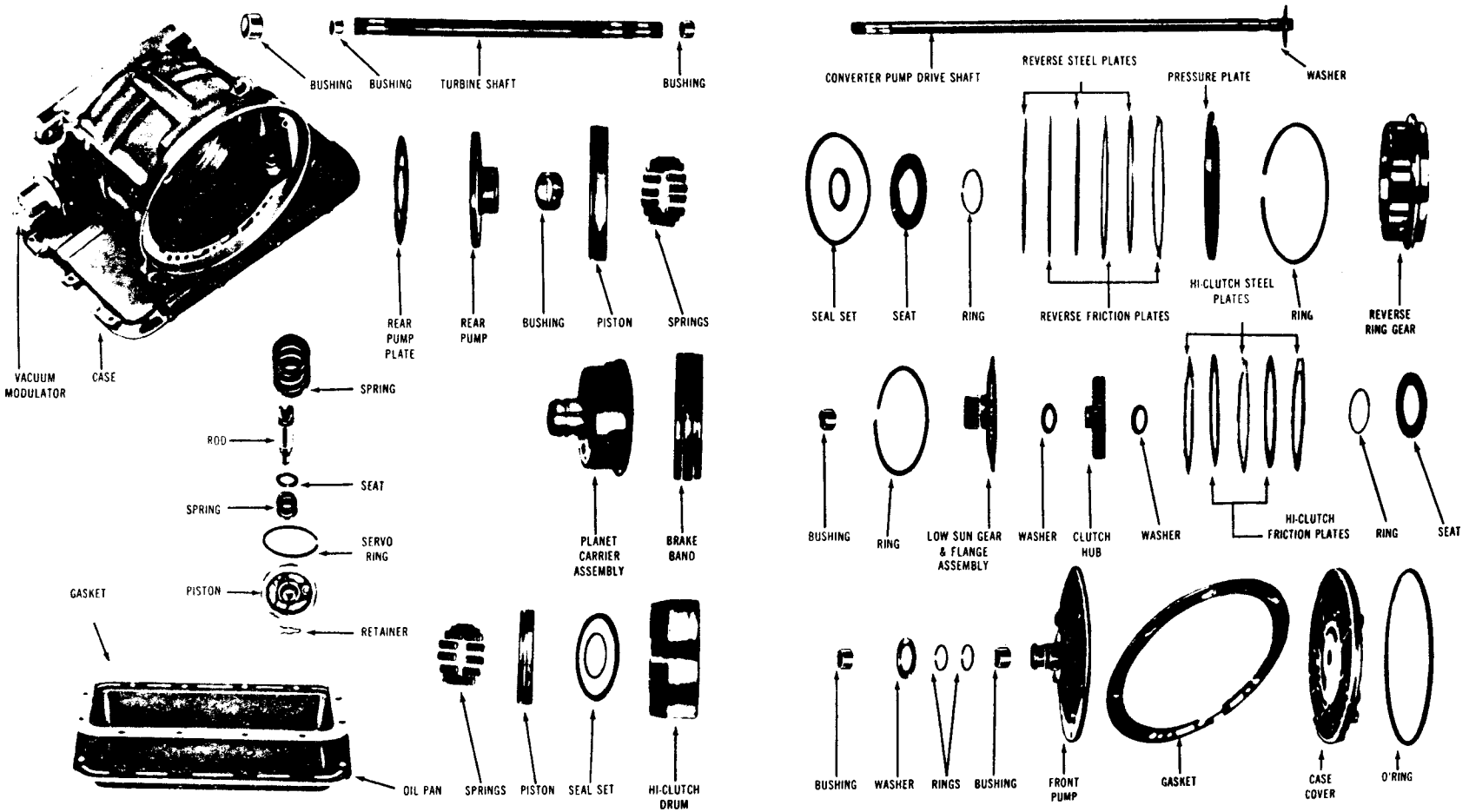
LOW SUN GEAR FLANGE WITH 6 TANGS

Before ordering parts for 1962 POWERGLIDE, with Cast Iron Case, count the number of Tangs on the Low Sun Gear Flange. If there are 6 Tangs, use the parts listed above. If there are 12 Tangs, substitute the parts shown at right:

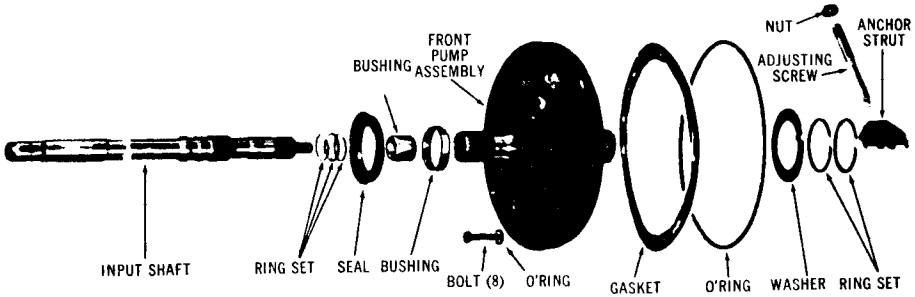
PARTS TO BE USED WITH 12 TANG FLANGE

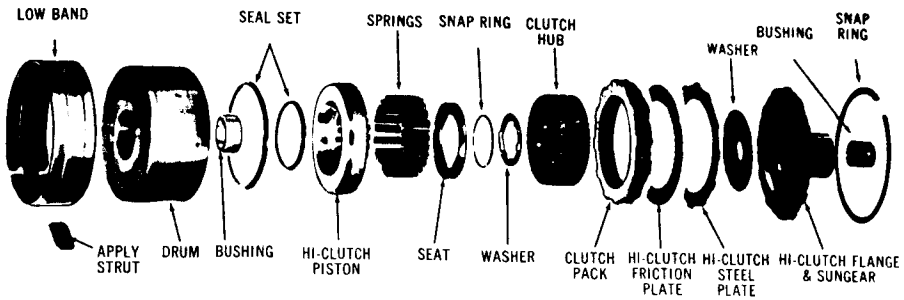
1	Clutch Drum Bushing
1	Forward Piston Seal Set
5	Steel Clutch Plates
4	Friction Clutch Plates
1	Low Sun Gear Washer
1	Overhaul Package

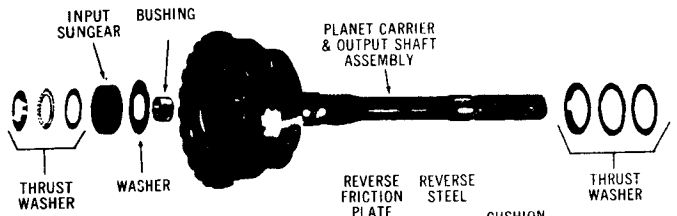
POWERGLIDE
(Transaxle & Tempestorque)

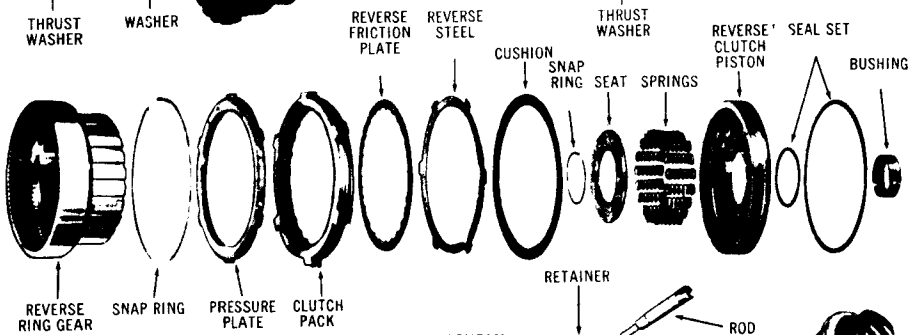


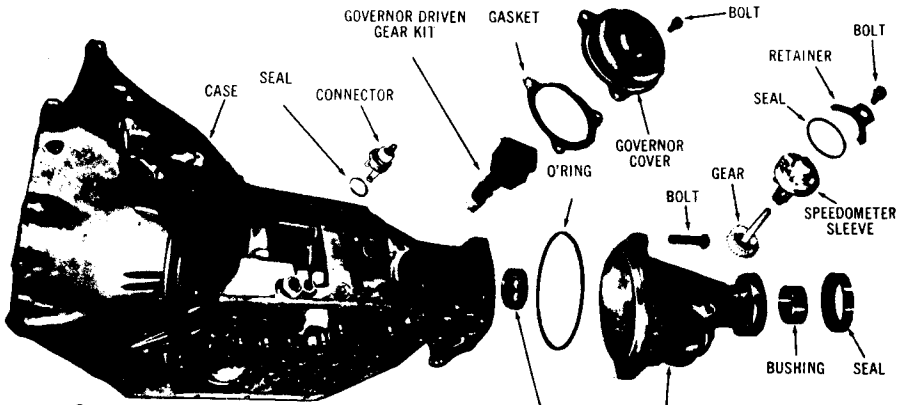
SUPER TURBINE 300

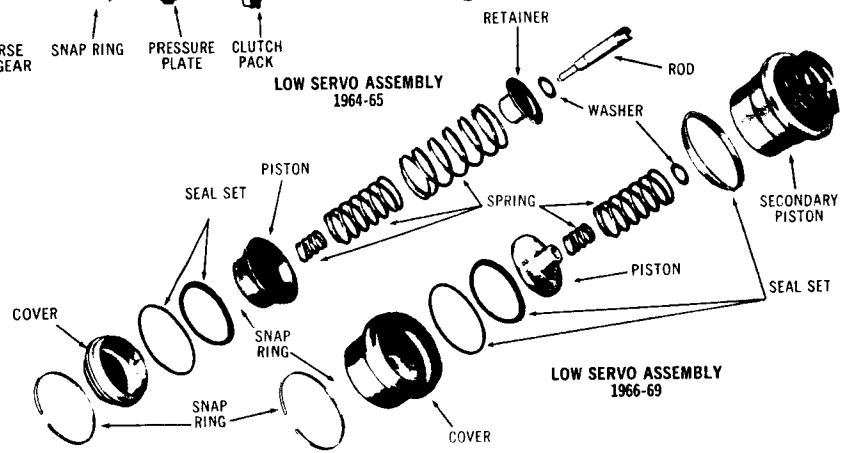


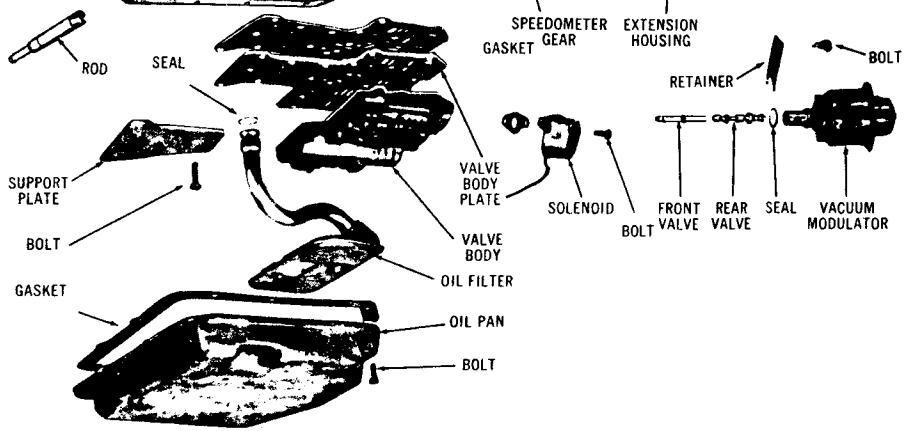


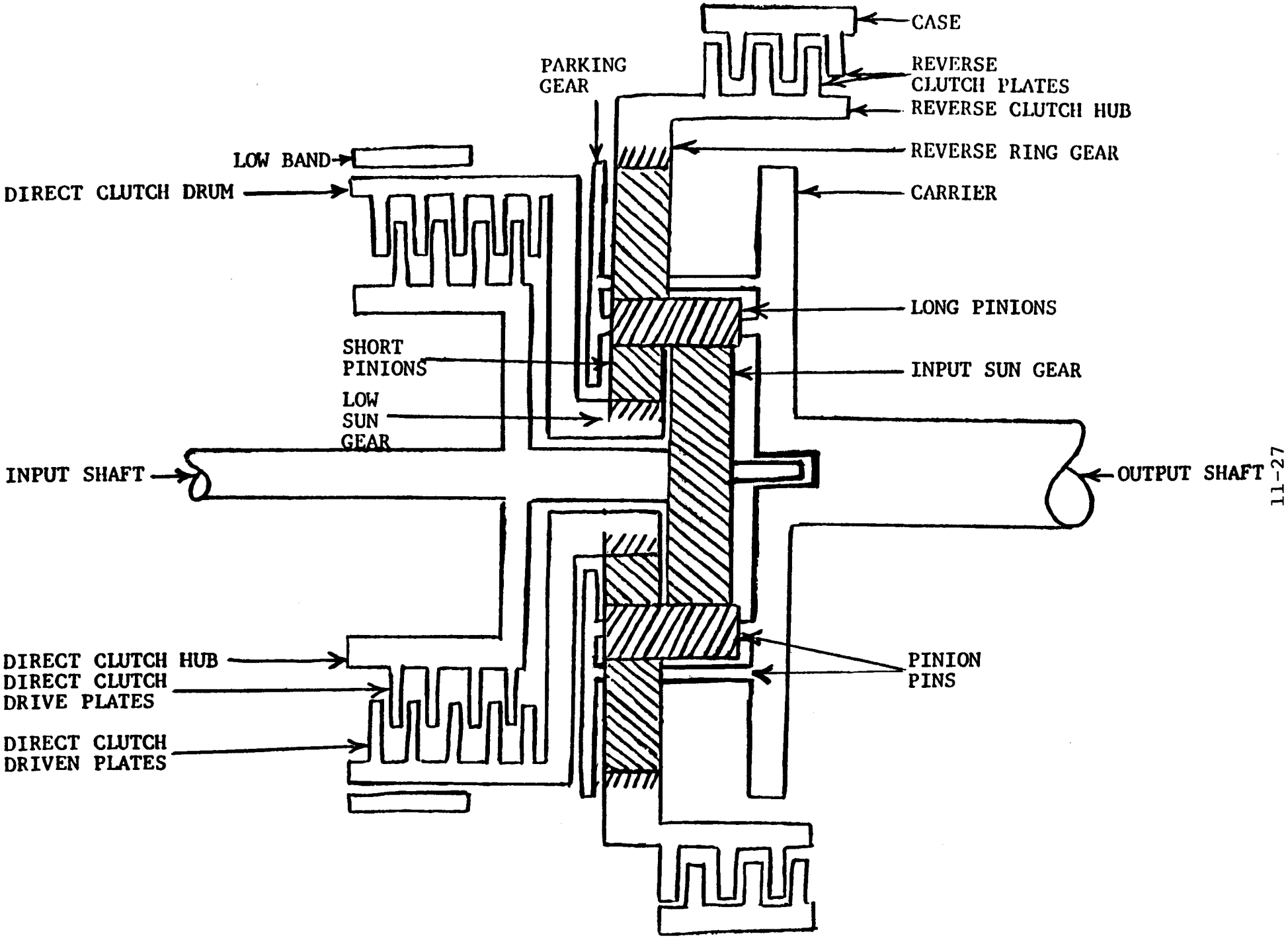






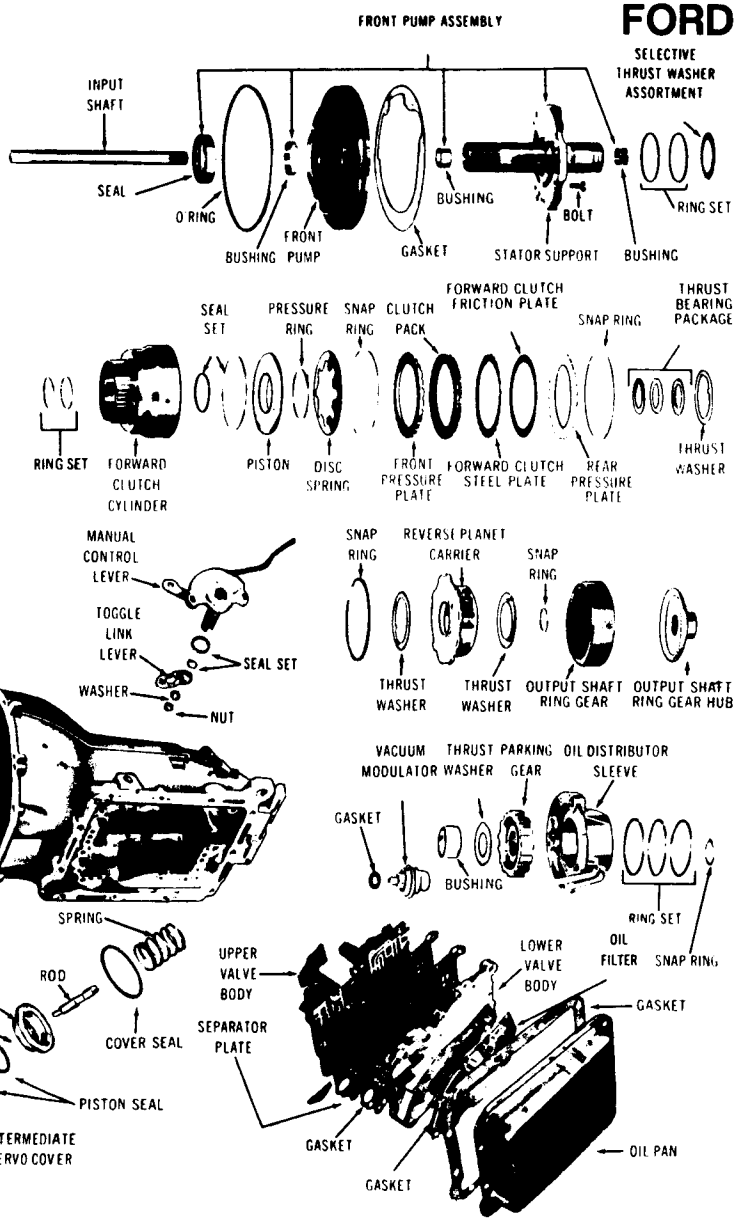




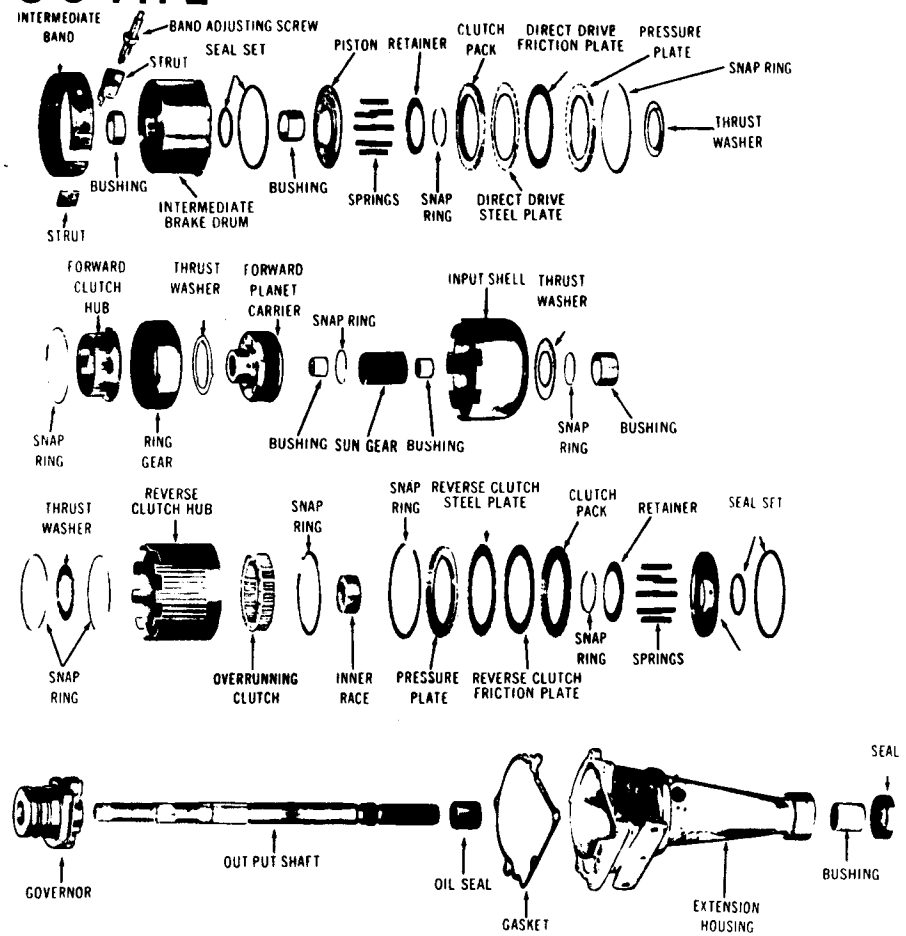

CASE
PARKING GEAR
REVERSE CLUTCH PLATES
REVERSE CLUTCH HUB
REVERSE RING GEAR
LOW BAND
DIRECT CLUTCH DRUM
CARRIER
LONG PINIONS
SHORT PINIONS
INPUT SUN GEAR
LOW SUN GEAR
INPUT SHAFT
OUTPUT SHAFT
DIRECT CLUTCH HUB
DIRECT CLUTCH DRIVE PLATES
PINION PINS
DIRECT CLUTCH DRIVEN PLATES

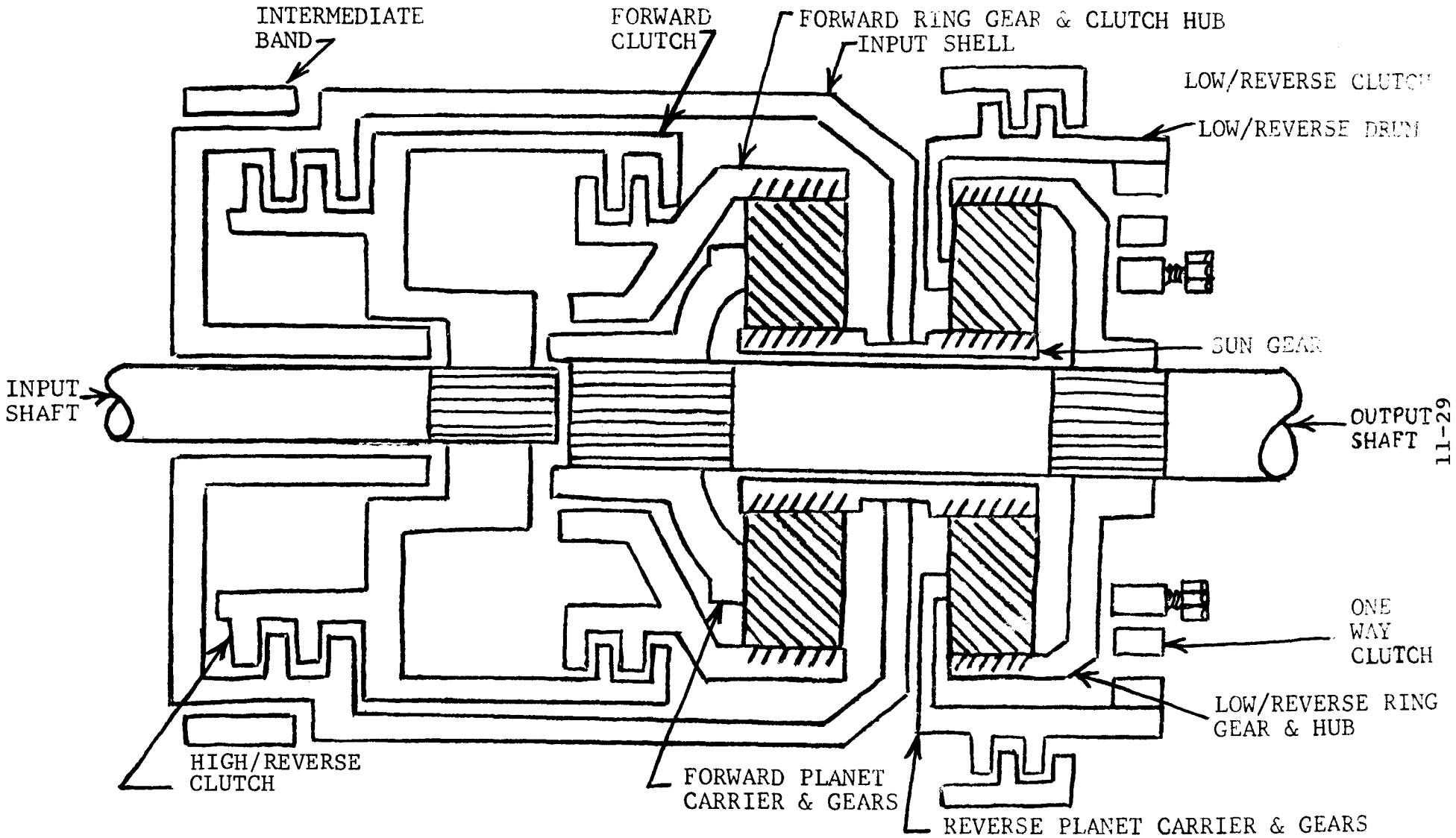
11-27

FORD


FRONT PUMP ASSEMBLY
SELECTIVE THRUST WASHER ASSORTMENT
INPUT SHAFT
SEAL
O RING
BUSHING
FRONT PUMP
GASKET
BUSHING
BOLT
STATOR SUPPORT
BUSHING
RING SET
SEAL SET
PRESSURE RING
SNAP RING
CLUTCH PACK
FORWARD CLUTCH FRICTION PLATE
SNAP RING
THRUST BEARING PACKAGE
RING SET
FORWARD CLUTCH CYLINDER
PISTON
DISC SPRING
FRONT PRESSURE PLATE
FORWARD CLUTCH STEEL PLATE
REAR PRESSURE PLATE
THRUST WASHER
MANUAL CONTROL LEVER
TOGGLE LINK LEVER
SEAL SET
WASHER
NUT
CASE
SNAP RING
REVERSE PLANET CARRIER
SNAP RING
THRUST WASHER
THRUST WASHER
OUTPUT SHAFT RING GEAR
OUTPUT SHAFT RING GEAR HUB
VACUUM MODULATOR
THRUST WASHER
PARKING GEAR
OIL DISTRIBUTOR SLEEVE
GASKET
BUSHING
RING SET
SPRING
PISTON
ROD
SNAP RING
COVER SEAL
GASKET
PISTON SEAL
INTERMEDIATE SERVO COVER
UPPER VALVE BODY
SEPARATOR PLATE
LOWER VALVE BODY
OIL FILTER
SNAP RING
GASKET
GASKET
GASKET
OIL PAN

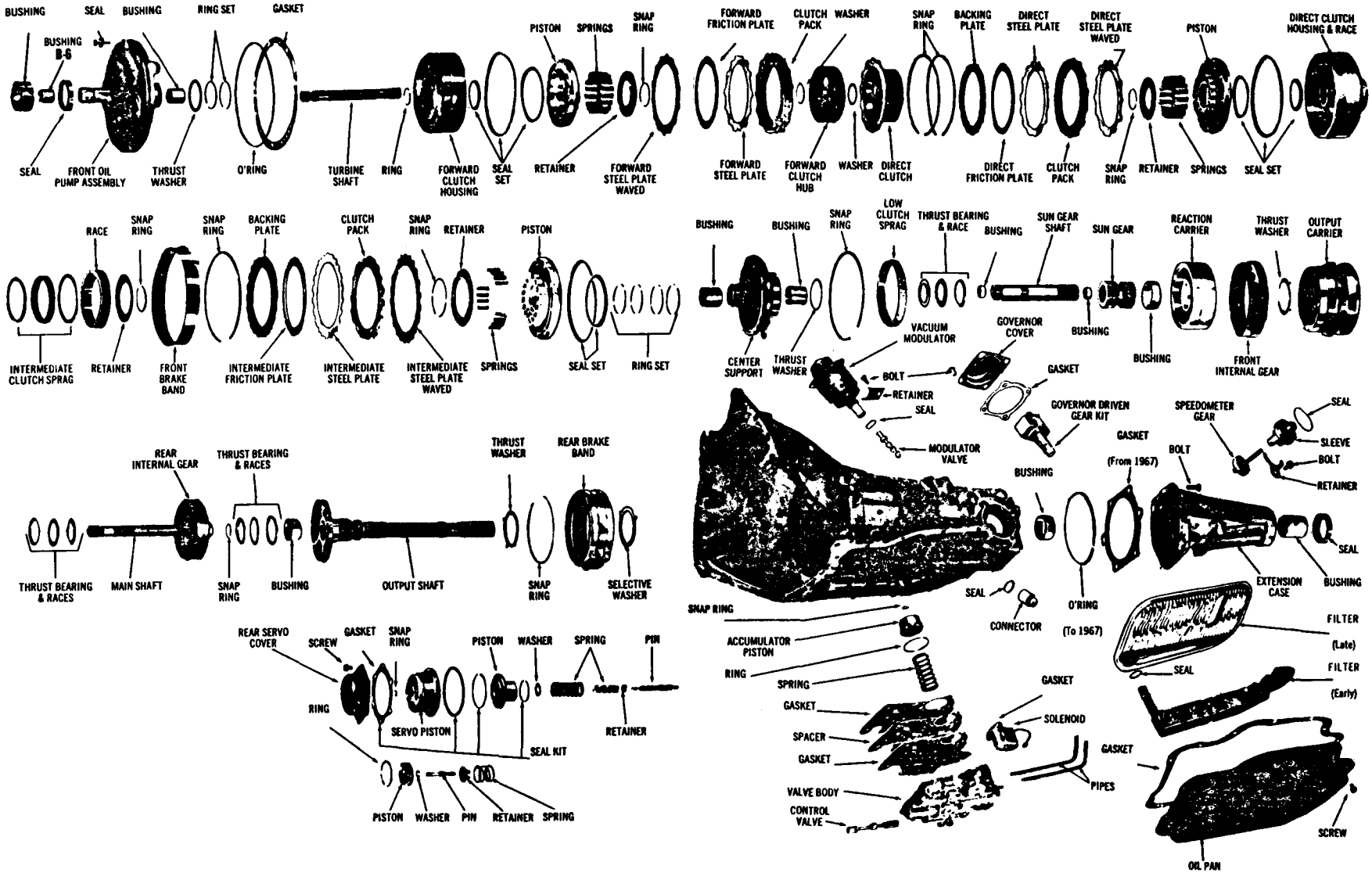
C-6 TYPE

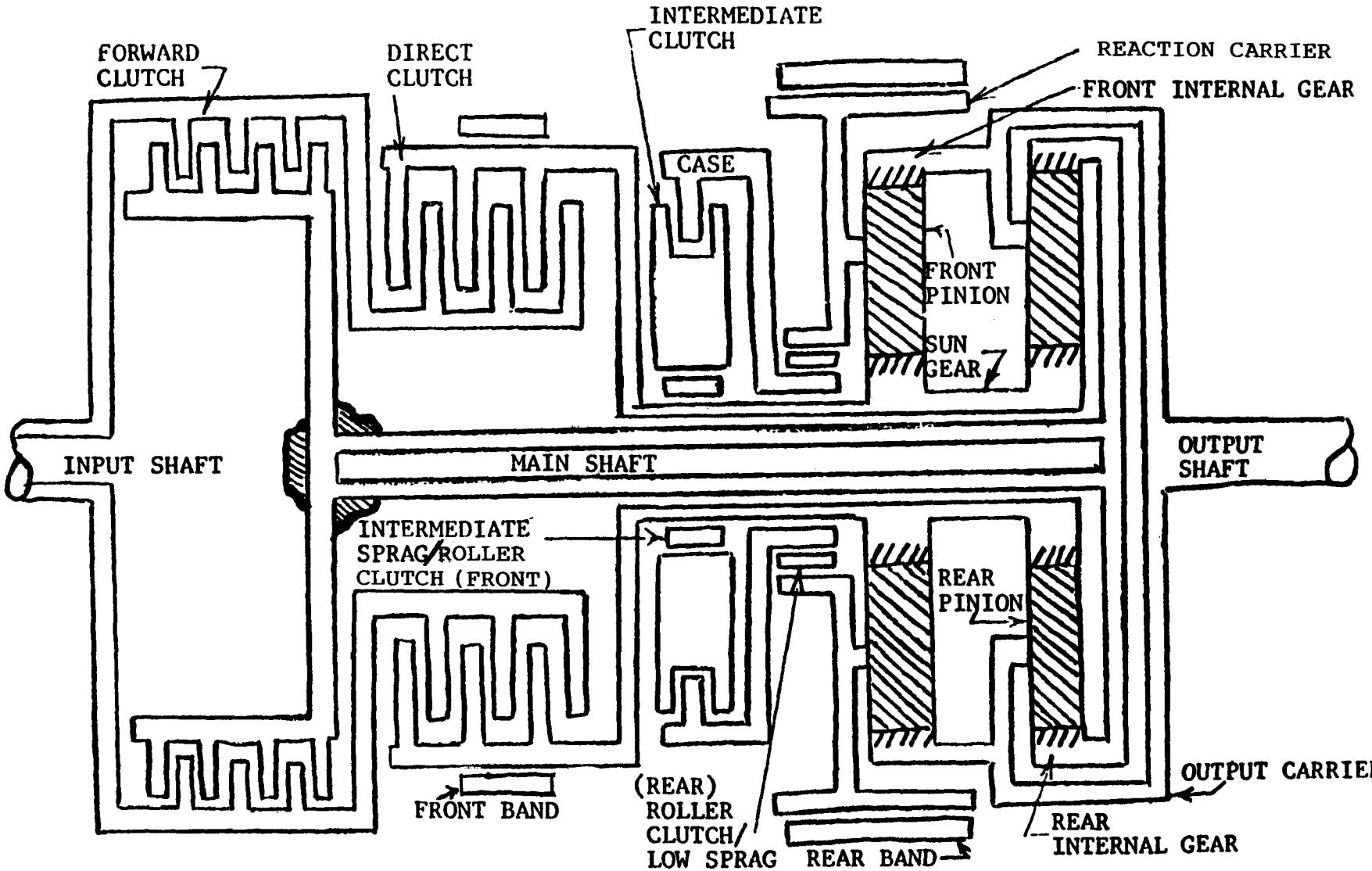

INTERMEDIATE BAND
BAND ADJUSTING SCREW
SEAL SET
STRUT
PISTON
RETAINER
CLUTCH PACK
DIRECT DRIVE FRICTION PLATE
PRESSURE PLATE
SNAP RING
THRUST WASHER
BUSHING
INTERMEDIATE BRAKE DRUM
BUSHING
SPRINGS
SNAP RING
DIRECT DRIVE STEEL PLATE
STRUT
FORWARD CLUTCH HUB
THRUST WASHER
FORWARD PLANET CARRIER
SNAP RING
INPUT SHELL
THRUST WASHER
SNAP RING
RING GEAR
BUSHING
SUN GEAR
BUSHING
SNAP RING
BUSHING
THRUST WASHER
REVERSE CLUTCH HUB
SNAP RING
SNAP RING
REVERSE CLUTCH STEEL PLATE
CLUTCH PACK
RETAINER
SEAL SET
SNAP RING
OVERRUNNING CLUTCH
INNER RACE
PRESSURE PLATE
REVERSE CLUTCH FRICTION PLATE
SNAP RING
SPRINGS
GOVERNOR
OUT PUT SHAFT
OIL SEAL
GASKET
EXTENSION HOUSING
SEAL
BUSHING


INTERMEDIATE BAND
FORWARD CLUTCH
FORWARD RING GEAR & CLUTCH HUB
INPUT SHELL
LOW/REVERSE CLUTCH
LOW/REVERSE DRUM
SUN GEAR
INPUT SHAFT
OUTPUT SHAFT
ONE WAY CLUTCH
LOW/REVERSE RING GEAR & HUB
HIGH/REVERSE CLUTCH
FORWARD PLANET CARRIER & GEARS
REVERSE PLANET CARRIER & GEARS
11-29

FORD C-6

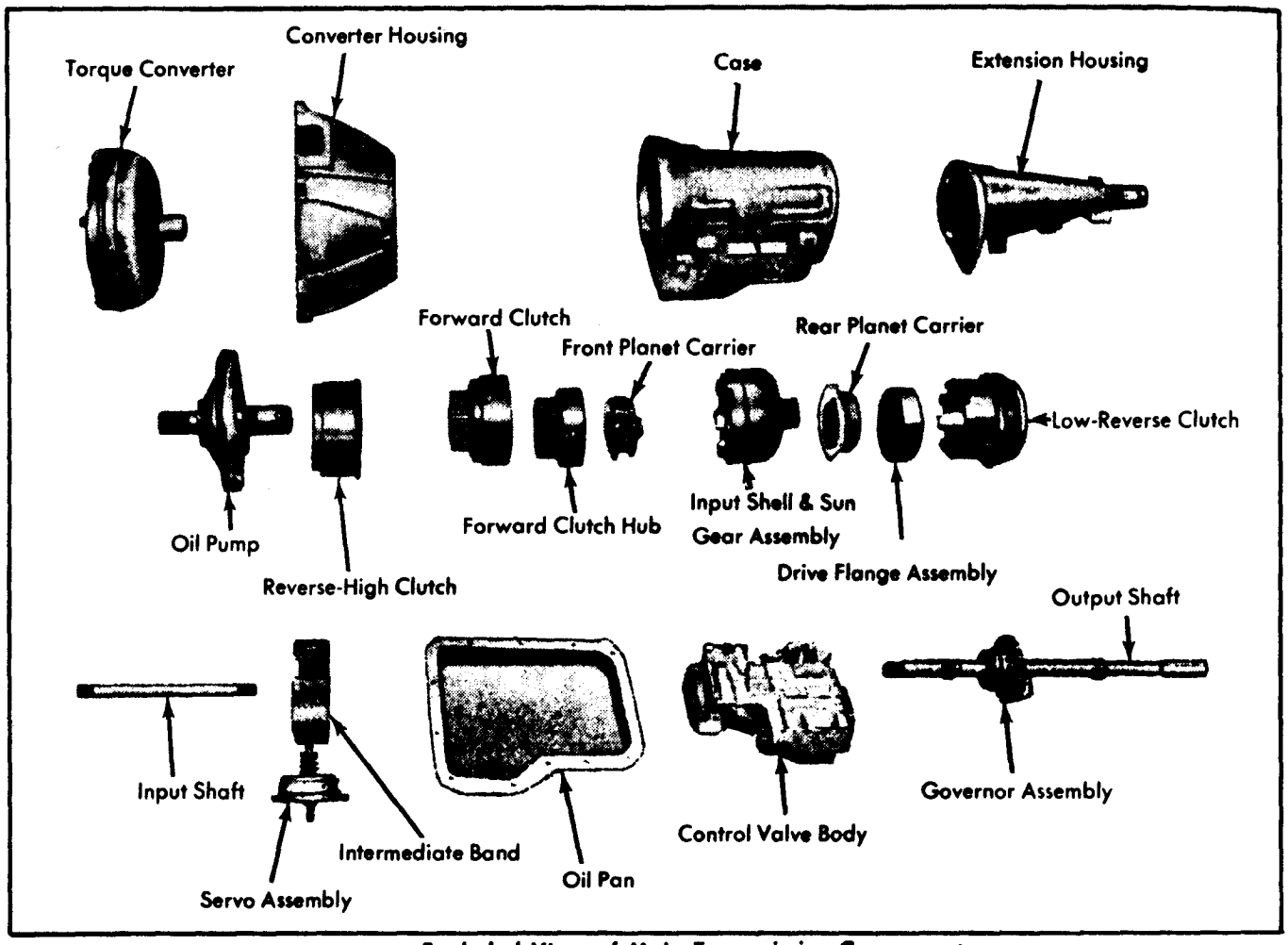
TURBO HYDRA-MATIC 425 & 400 M-40



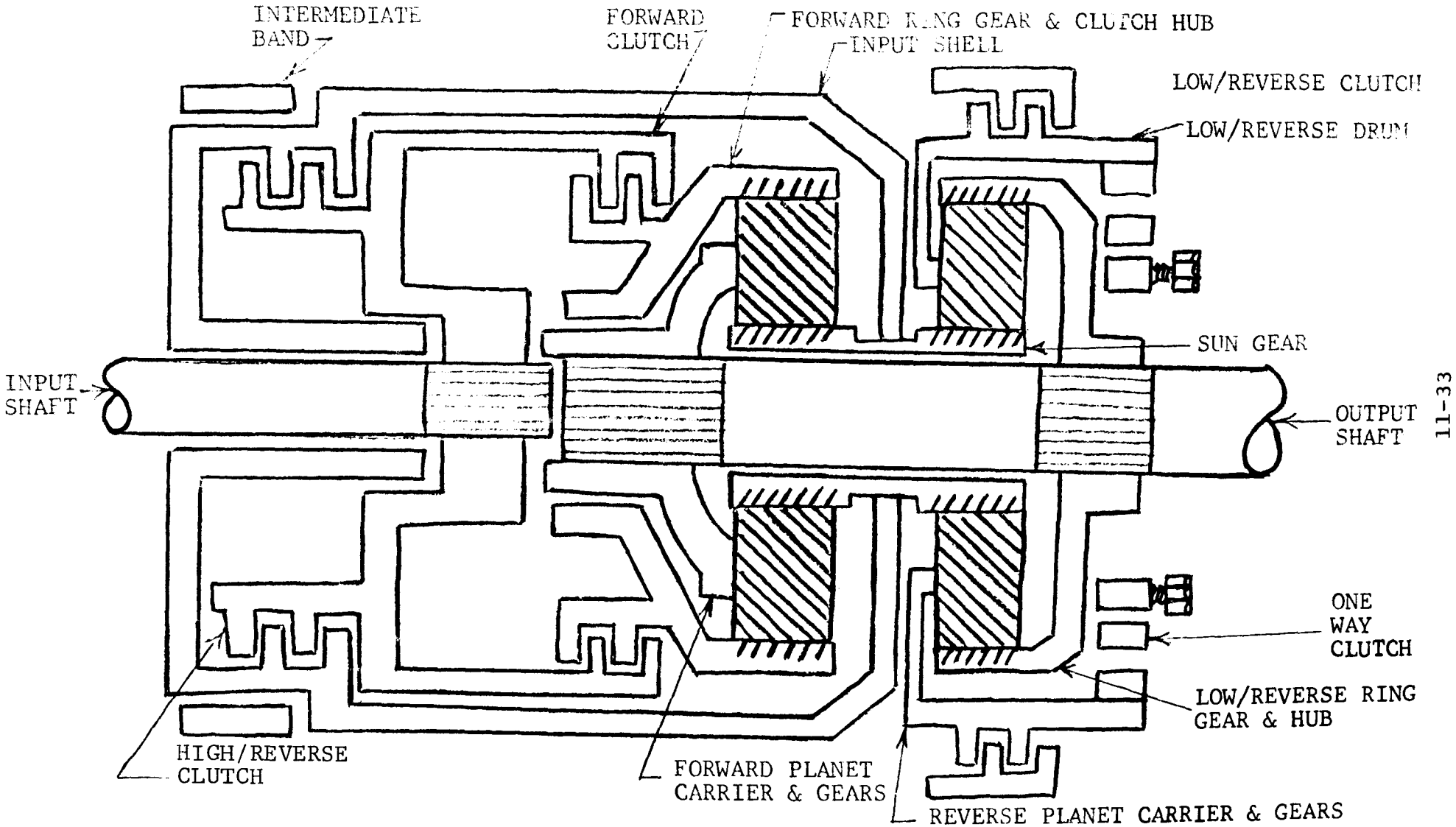


TURBO HYDRA-MATIC & SUPER TURBINE "400"

FORD MOTOR CO. JATCO



Exploded View of Main Transmission Components


INTERMEDIATE BAND
FORWARD CLUTCH
FORWARD RING GEAR & CLUTCH HUB
INPUT SHELL
LOW/REVERSE CLUTCH
LOW/REVERSE DRUM
SUN GEAR
INPUT SHAFT
OUTPUT SHAFT
ONE WAY CLUTCH
LOW/REVERSE RING GEAR & HUB
HIGH/REVERSE CLUTCH
FORWARD PLANET CARRIER & GEARS
REVERSE PLANET CARRIER & GEARS

JATCO

C-6

BEGINNING END PLAY _____ END PLAY SPEC _____ ASSEMBLED END PLAY _____

INSTRUCTOR CHECK POINTS		SPECS	AIR TESTS	
GOVERNOR TUBES	_____	FRONT PUMP	FORWARD CLUTCH	_____
REVERSE PISTON CHECK BALL LOCATION	_____	VISUAL _____	HI-REVERSE CLUTCH	_____
REVERSE SPRING RETAINER AND SNAP RING	_____	FORWARD CLUTCH	LOW-REVERSE CLUTCH	_____
REVERSE CLUTCH CLEARANCE	_____	S/B_____ Is_____	INT. BAND	_____
REAR RING HUB TO OUTPUT SHAFT SPLINES	_____	HIGH-REVERSE CLUTCH	GOV.-PRIMARY	_____
OUTPUT SHAFT TO RING GEAR SNAP RING	_____	S/B_____ Is_____	GOV.-SECONDARY	_____
FORWARD CLUTCH FINAL ASSEMBLY	_____	LOW-REVERSE CLUTCH		
HIGH-REVERSE CLUTCH FINAL ASSEMBLY	_____	COUNT_____ CLEARANCE_____		
PUMP BUSHING AND GEAR I.D. MARKS	_____	INT. BAND S/B_____ Is_____		
INPUT SHAFT TURNS	_____	PINION CLEARANCE S/B_____		
LINKAGE AND RETAINER NUT	_____	IS: FRONT_____ _____ _____		
BALL COUNT AND LOCATION	_____	REAR _____ _____ _____		
FILTER GASKET	_____			

TH-400

BEGINNING ENDPLAY
FRONT _____
REAR _____

FRONT SPECS _____
REAR SPECS _____

ASSEMBLED ENDPLAY
FRONT _____
REAR _____

INSTRUCTOR CHECK POINTS

CASE BUSHING INSTALLED PROPERLY _____
ALL BEARINGS BUILT PROPERLY _____
CENTER SUPPORT BUSHING INSTALLED PROPERLY _____
CORRECT CENTER SUPPORT SNAP RING _____
DIRECT PISTON CHECK BALL _____
FORWARD CLUTCH FINAL _____
DIRECT CLUTCH FINAL _____
DIRECT DRUM INDEXED _____
FORWARD DRUM INDEXED _____
INPUT SHAFT TURNS _____
AIR TEST _____
CASE BALL COUNT AND LOCATION _____
TRANSFER PLATE GASKETS CORRECT _____
FILTER "O" RING INSTALLED _____
DYNO TEST _____

SPECS

FRONT PUMP

GEAR END CLEARANCE S/B ___ IS ___

CLUTCHES

FORWARD CLUTCH S/B ___ IS ___
DIRECT CLUTCH S/B ___ IS ___
INT. CLUTCH COUNT IS ___

BANDS

LOW/REVERSE BAND SELECTIVE APPLY ANCHOR PIN I.D. _____

PLANETARY PINIONS

PINION CLEARANCE			SPEC
FRONT	_____	_____	_____
REAR	_____	_____	_____

AIR TESTS

FORWARD CLUTCH _____
DIRECT CLUTCH (2) _____
INT. CLUTCH _____
LOW/REVERSE BAND _____
1-2 ACC. _____
GOVERNOR _____

FMX

BEGINNING END PLAY _____ END PLAY SPEC _____ ASSEMBLED END PLAY _____

INSTRUCTOR CHECK POINTS		SPECS	AIR TESTS	
FRONT CLUTCH FINAL	_____	FRONT PUMP	FRONT CLUTCH	_____
REAR CLUTCH FINAL	_____	VISUAL _____	REAR CLUTCH	_____
AIR TEST ON BOTH CLUTCHES	_____	REAR PUMP	FRONT BAND	_____
FRONT BAND INSTALLED PROPERLY	_____	VISUAL _____	REAR BAND	_____
CENTER SUPPORT INSTALLED PROPERLY	_____	FRONT CLUTCH	GOVERNOR	_____
REAR BAND INSTALLED PROPERLY	_____	S/B _____ IS _____		
ONE WAY CLUTCH FULLY INDEXED	_____	REAR CLUTCH		
REAR PUMP/REAR SUPPORT	_____	S/B _____ IS _____		
REGULATOR VALVE BODY	_____	FRONT BAND		
SHIFT VALVE BODY	_____	TORQUE TO: _____		
TUBES	_____	BACK OFF: _____		
FILTER	_____	REAR BAND		
LINKAGE	_____	TORQUE TO: _____		
		BACK OFF: _____		
		PINION CLEARANCE S/B _____		
		IS: LONG _____ _____ _____		
		SHORT _____ _____ _____		

Beginning End Play _____ End Play Spec _____ Assembled End Play _____

UNIVERSAL TECHNICAL INSTITUTE
INTERNAL REPAIR ORDER

Name Chrysler Front Wheel Drive	Year	Phase No.
Job No.	Make	Instructor
Date Started	Case Production No.	Comments
Date Completed	Mileage	

Student Name	I. D.	Grade	Student Name	I. D.	Grade	Student Name	I. D.	Grade

Instructor Check Points	Specifications	Air Test
Final Drive Assembly _____	Front Pump	Front Clutch
Transfer Shaft Assembly _____	Outer Gear to Pocket s/b ___ is ___	Rear Clutch
Output Shaft Assembly _____	Outer Gear is to Crescent s/b ___ is ___	Front Band
Servo and Accumulator Piston and Spring Assemblies _____	Inner Gear o/d to Crescent s/b ___ is ___	Rear Band
One Way Clutch Assembly _____	Outer Gear Side Clearance s/b ___ is ___	Governor
Output Shaft Snap Ring _____	Inner Gear Side Clearance s/b ___ is ___	Accumulator
Selective Thrust Washer _____	Clutches	
Input Shaft Turns _____	Front s/b ___ is ___	Differential End Play _____
Air Test _____	Rear s/b ___ is ___	Shim Combination ___ ___
Valve Body Ball Count & Location _____	Bands	Turning torque _____
Valve Body Linkage _____	Front: torque to _____	
	back ___ turns	Output Shaft End Play _____
	Rear 413 & 470: torque to _____	Shim Combination ___ ___
	back ___ turns	Turning torque _____
	404 _____ band end gap	
	good ___ bad ___	Transfer Shaft End Play
		s/b _____ is _____
	Planetary pinion clearance s/b _____	Shim Combination ___ ___
Torque all bolts to ½ specs max.	is: front ___ ___ ___ ___ rear ___ ___ ___ ___	