



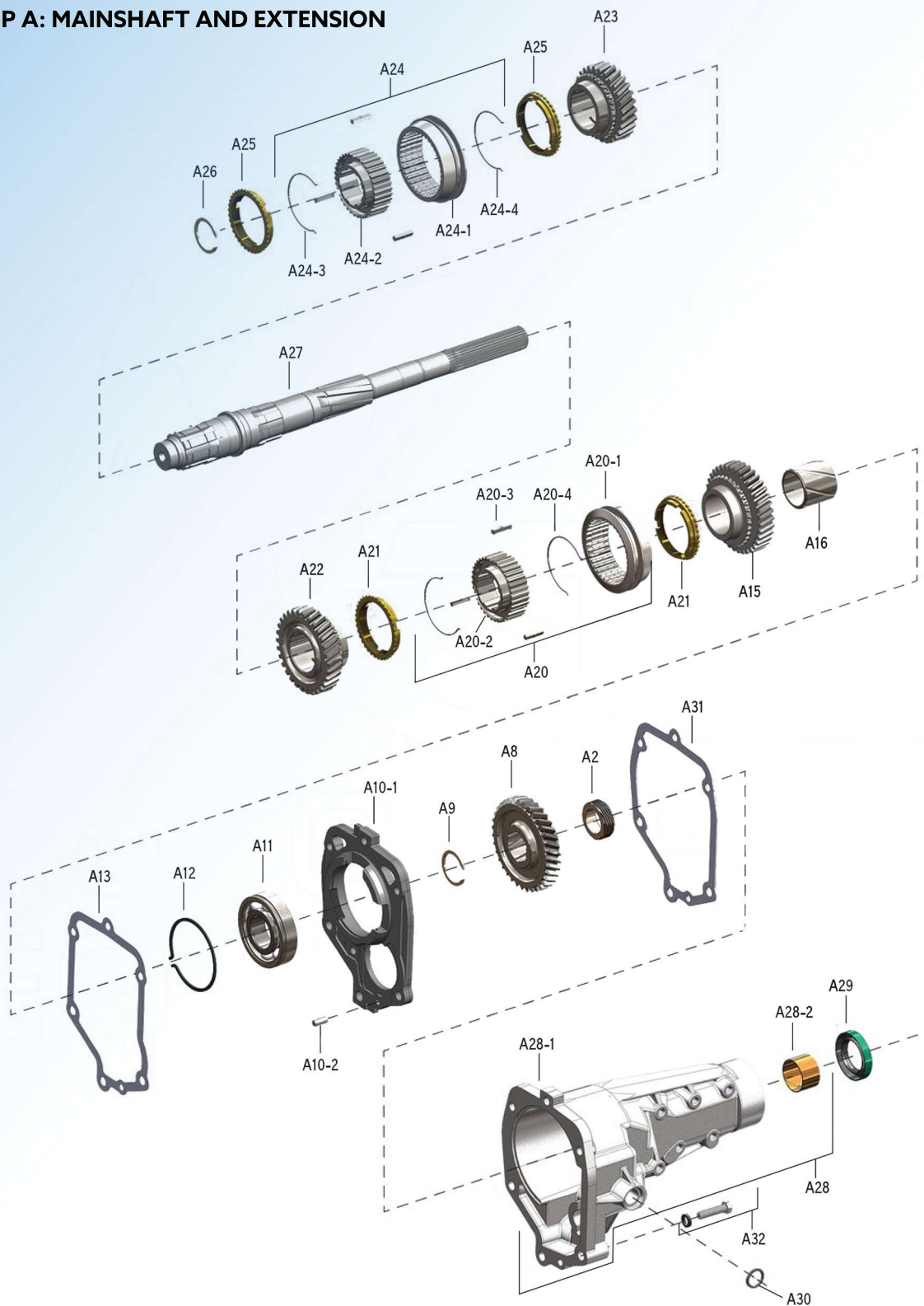
GENERAL MOTORS 'MUNCIE' 4-SPEED

Manual Transmission
Assemblies, Gears & Parts

High Performance 1963-1974

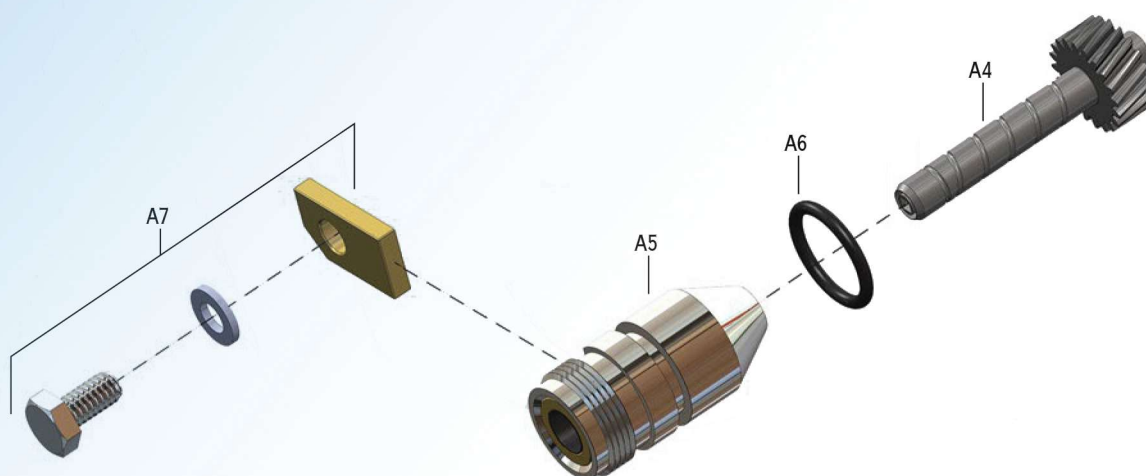
GENERAL MOTORS 'MUNCIE' 4-SPEED

GROUP A: MAINSHAFT AND EXTENSION



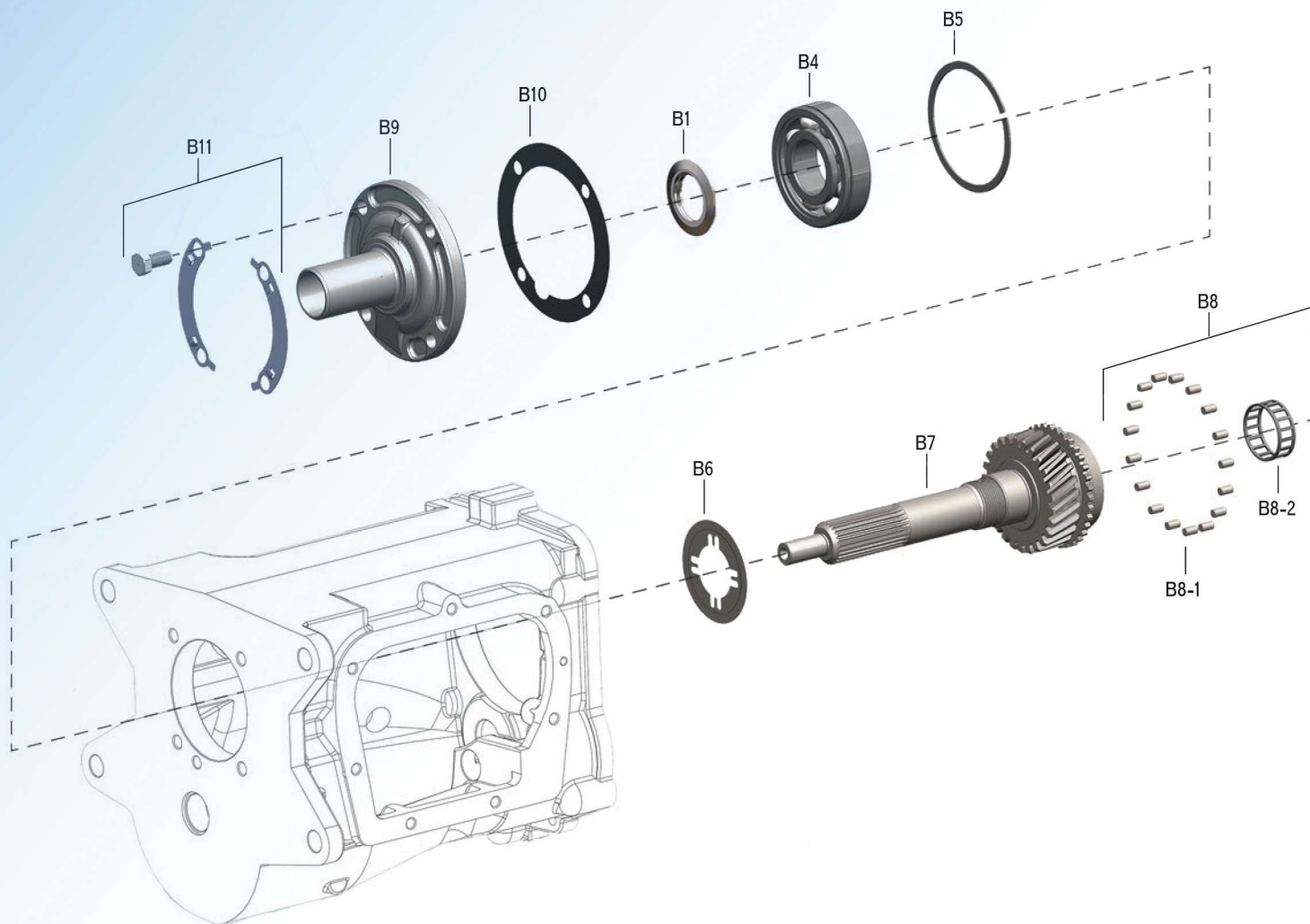
GENERAL MOTORS 'MUNCIE' 4-SPEED

GROUP A: MAINSHAFT AND EXTENSION ASSEMBLY (SPEEDOMETER PARTS)



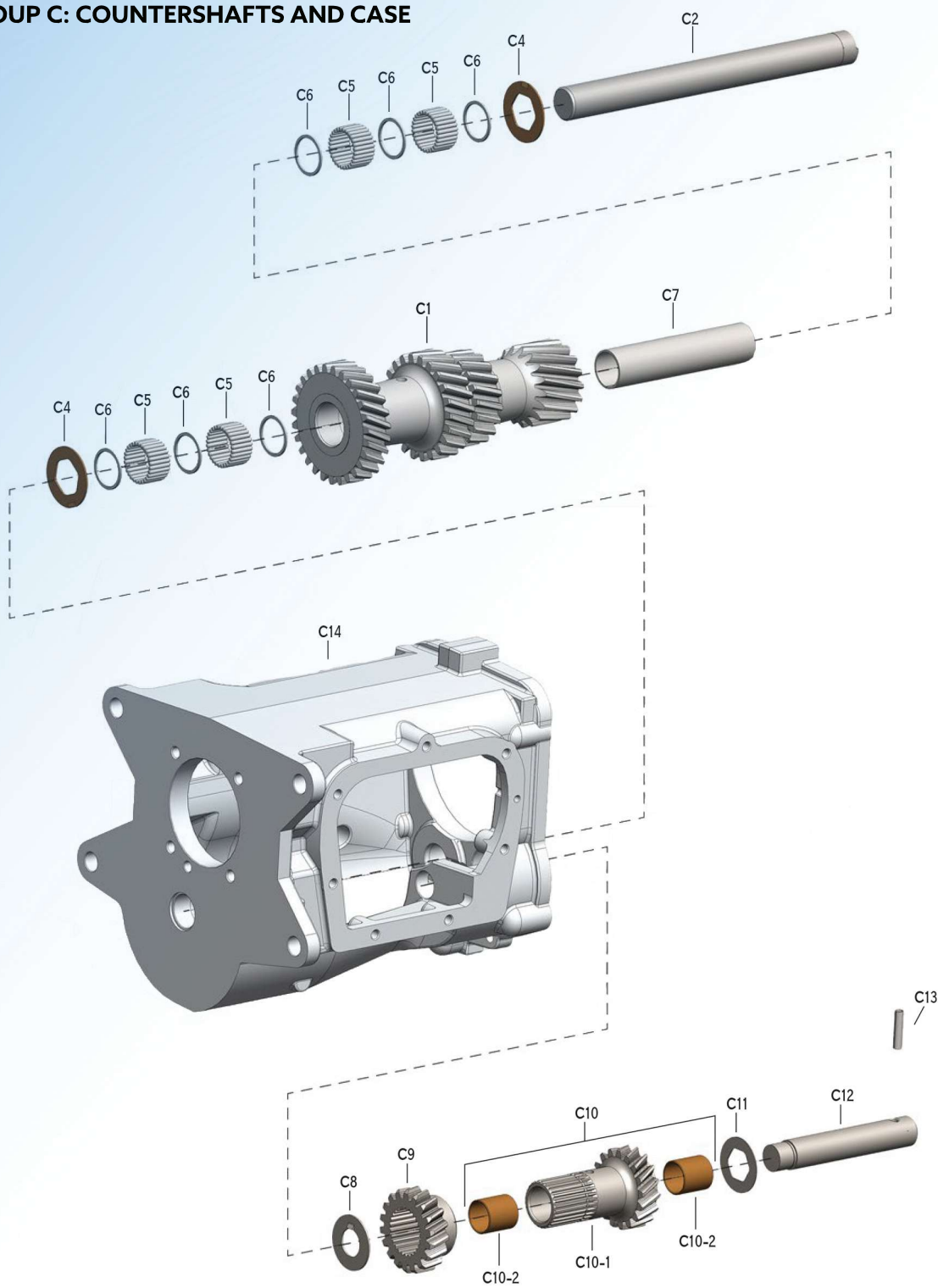
GENERAL MOTORS 'MUNCIE' 4-SPEED

GROUP B: MAINDRIVE AND RETAINER



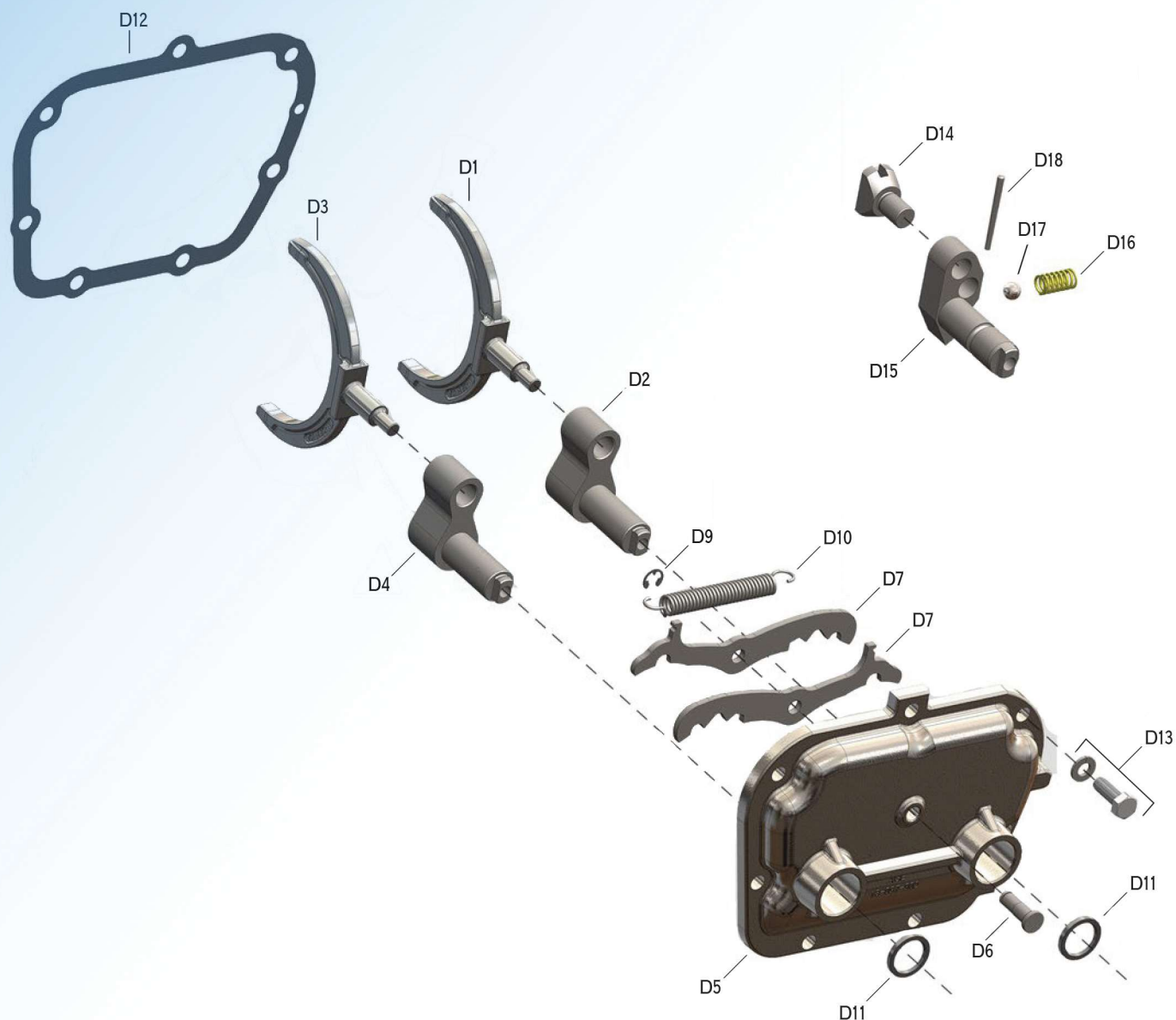
GENERAL MOTORS 'MUNCIE' 4-SPEED

GROUP C: COUNTERSHAFTS AND CASE



GENERAL MOTORS 'MUNCIE' 4-SPEED

GROUP D: INTERNAL SHIFT LINKAGE





GENERAL MOTORS 'MUNCIE' 4-SPEED

Is this the list for me? If you have a gearbox cast 'General Motors' on the closed side and would like to keep it original, you're in the right place. However, if you're looking to upgrade your 'Muncie' four speed and wonder what's available, most 'Syracuse' four speed parts are legacy compatible alone or in affordable 'do it yourself' kits, so you might want to check out our AutoGear 'Syracuse' 4 Speed list, too.

How do I read it? All AutoGear parts lists follow a single format with items organized into logical 'groups', 'Mainshaft', 'Maindrive', 'Countershaft', etc. Within each group items are presented in almost disassembly sequence, 'almost' because the less frequently interesting castings and fasteners are always listed at the bottom of the group. So you can also use the list and exploded views to answer 'Where's it go?' questions.

Assemblies, such as synchronizers, or items that are typically serviced alone, such as synchronizer rings, are identified by a left-justified letter and number ('A20' or 'A21', for example). Items contained in assemblies, such as synchronizer hubs, are identified by the indented letter and number of the assembly followed by a 'dash number' ('A20-2', for example). Purchasing the assembly is the same as purchasing all the indented items in the quantities shown as required.

The left most column — the 'data' column — provides dimensional, descriptive or application information, most of which should be easily understood. There are two instances where help might be needed.

First, consider a maindrive gear described as 'L22-s36T'. This is decoded as a left hand helical gear having 22 driving teeth and 36 straight clutching teeth, all present. Again, a mainshaft described as 's8-8-r6-s27T'. This is decoded as, front to rear, 8 straight splines in two places (for the synchronizer hubs), 6 right hand splines (for the helical reverse) and 27 straight splines (for the slip yoke). Finally, a sliding clutch described as 's18(36)T'. Read this as a 36 spline clutch having 18 splines removed, or 18 splines on a 36 spline circle.

Second, where useful information such as a casting or vendor number can be read directly from the part, '#' precedes the markings to look for. So '#3915020' tells us about a maindrive retainer with cast numbers '3915020'.

OEM part numbers, where shown in the next to right most column, indicate that the AutoGear part number in the right most column is a direct replacement, although the design may be different or improved.

GENERAL MOTORS 'MUNCIE' 4-SPEED

Regarding the calendar years of application (gearboxes rarely follow model years), 'Muncie' 4-speeds were manufactured by Chevrolet in their Muncie, Indiana manual transmission plant; design changes usually found their way into the fastest moving Chevrolet product lines first. For this reason years are approximate and probably best fit Chevrolet nameplates. Expect that Pontiac tracked Chevrolet closely, Oldsmobile followed at a distance, and Buick trailed.

Notes are scattered throughout. Left-justified notes apply to everything within the item whose description they follow. Indented notes within an item record apply to the one or, when indicated, more lines above. 'NSS' abbreviates 'not sold separately'.

SERVICE KITS

For your convenience we've organized collections of items commonly serviced together into Service Kits and, to make clear what parts are in each kit, we've identified the kit and the parts contained by a unique symbol (#, %, & or @) found after the item description.

K1	OVERHAUL KIT ^		
	207 MAINDRIVE BEARING	(1963)	OH297B
	307 MAINDRIVE BEARING	(1964-65)	OH297A
	27 SPLINE MAINSHAFT	(1966-70)	OH297C
	32 SPLINE MAINSHAFT	(1971-74)	OH297
K1-1	BEARING/OILSEAL KIT #		
NOTE: Ball bearings, oilseals and maindrive bearing nut for ONE (1) transmission.			
	27 SPLINE MAINSHAFT W/ 207 BEARING	(1963)	BK297A
	27 SPLINE MAINSHAFT W/ 307 BEARING	(1964-70)	BK297B
	32 SPLINE MAINSHAFT	(1971-74)	BK297
K1-2	SYNCHRONIZER KIT %		
NOTE: Synchronizer rings, struts and springs for ONE (1) transmission.			
	SYNCHRONIZER RINGS W/O SHOULDER	(1963-65)	YN297
	SYNCHRONIZER RINGS W/ SHOULDER	(1966-74)	YN297A
NOTE: Synchronizer rings, struts and springs for ONE (1) transmission.			
K1-3	SMALL PARTS KIT &		
NOTE: Rollers and unit cages, thrust washers, spacers, and snaprings for ONE (1) transmission.			
	7/8 INCH DIAMETER COUNTERSHAFT	(1963-65)	SP297-50
	1 INCH DIAMETER COUNTERSHAFT	(1966-74)	SP297-50A
K1-4	GASKET SET @		
NOTE: Gaskets and Speedometer Adapter O-Ring for ONE (1) transmission.			
	207 MAINDRIVE BEARING	(1963)	18-455-102
	307 MAINDRIVE BEARING	(1964-74)	18-455-103

GENERAL MOTORS 'MUNCIE' 4-SPEED

GROUP A: MAINSHAFT AND EXTENSION



A1	YOKE STOP SNAPRING ^& 27 SPLINE MAINSHAFT	(1963)	3707 191	3707 191
A2	SPEEDOMETER CIRCLE GEAR			
	<i>DID YOU KNOW? There's a trick to counting Speedometer Circle Gear teeth — each tooth crosses the end of the gear once. So count around, not front-to-back. To learn more about speedometer drive hardware download AGE print 18-110-xxx.</i>			
	L6T STEEL: 1.92" OD	(1963-70)	3845 079	3845 079
	L7T STEEL: 1.76" OD	(1963-70)		
	L8T STEEL: 1.76" OD	(1963-70)	3708 145	3708 145
	L7T STEEL: 1.84" OD	(1963-70)		18-110-006
	L8T STEEL: 1.84" OD	(1963-70)	3708144	18-110-007
	L8T NATURAL NYLON: 1.84" OD	(1969-70)	6261 794	6261 794
	<i>NOTE: these SIX (6) gears have 1.84" outside diameter and 30mm bore; used with 27 spline mainshafts.</i>			
	L7T STEEL: 1.84" OD	(1971-74)		18-110-008
	L8T STEEL: 1.84" OD	(1971-74)	3978 758	18-110-009
	<i>NOTE: these TWO (2) gears have 1.84" outside diameter and 35mm bore; used with 32 spline mainshafts.</i>			
A3	SPEEDOMETER CIRCLE GEAR RETAINER ^& USED WITH NYLON GEAR ONLY	(1969-70)	6261 781	6261 781
A4	SPEEDOMETER PENCIL GEAR			
	L20T STEEL		3860 329	3860 329
	<i>NOTE: this ONE (1) gear used with 1.92" outside diameter circle gear.</i>			
	L22T GREEN NYLON		3860 345	3860 345
	L23T BLACK NYLON		3860 346	3860 346
	L24T YELLOW NYLON		3860 347	3860 347
	L25T ORANGE NYLON		3860 348	3860 348
	<i>NOTE: these FOUR (4) gears used with 1.76" outside diameter circle gears.</i>			
	L17T PURPLE NYLON		3987 917	3987 917
	L18T BROWN NYLON		3987 918	3987 918
	L19T NATURAL NYLON		3987 919	3987 919
	L20T BLUE NYLON		3987 920	3987 920
	L21T RED NYLON		3987 921	3987 921
	L22T SILVER NYLON		3987 922	3987 922
	<i>NOTE: these SIX (6) gears used with 1.84" outside diameter circle gears.</i>			
A5	SPEEDOMETER ADAPTER ASSY			
	ALL		345 215	345 215
A5-1	ADAPTER			
	ALL		NSS	NSS
A5-2	ADAPTER OILSEAL			
	ALL		2538 588	2538 588
A6	SPEEDOMETER ADAPTER O-RING ^@			
	ALL		3708 146	0-141-006
A7	SPEEDOMETER ADAPTER FASTENERS			
	LOCKPLATE		3708 148	3708 148
	1/4-20 X 5/8 HHCS			
	1/4 MEDIUM L'WASHER			
A8	MAINSHAFT REVERSE GEAR			
	R35-R6T		3831 748	WT297-36
A9	MAINSHAFT BEARING/SHAFT SNAPRING ^&			
	.095 - .097	AS REQ.	3831 755	18-139-011
	.092 - .094	AS REQ.	3831 756	18-139-012
	.089 - .091	AS REQ.	3831 757	18-139-013
	.086 - .088	AS REQ.	3831 758	18-139-014
	.083 - .085	AS REQ.	3831 759	18-139-015



GENERAL MOTORS 'MUNCIE' 4-SPEED

A10	MAINSHAFT BEARING SUPPORT ASSY			
	#3831752: ALUMINUM		3831 752	3831 752
A10-1	BEARING SUPPORT			NSS
	ALL			
A10-2	DOWEL PIN			0-043-011
	ALL			
A11	MAINSHAFT BEARING ASSY ^#			
	ND-H #43308AB1		907 474	6308NR
	NOTE: discard the bundled snapping.			
A12	MAINSHAFT BEARING/SUPPORT SNAPRING ^&			
	ALL		3831 749	2-139-003
A13	MAINSHAFT BEARING SUPPORT GASKET ^@			
	ALL		3911 900	18-045-103
A14	MAINSHAFT 1ST GEAR THRUST WASHER ^&			
	ALL	(1963)	3831 745	3831 745
A15	MAINSHAFT 1ST GEAR			
	L36-S36T: M20/M21	(1963)	3831 743	WT297-12
	NOTE: Used WITHOUT Mainshaft 1st Gear Sleeve and WITH Mainshaft 1st Gear Thrust Washer.			
	L36-S36T: M20/M21	(1964-74)	3849 388	18-080-025
	L36-S36T: M22	(1966-74)	3924 796	18-080-026
	NOTE: These TWO (2) Gears used WITH Mainshaft 1st Gear Sleeve and WITHOUT Mainshaft 1st Gear Thrust Washer.			
A16	MAINSHAFT 1ST GEAR BUSHING			
	ALL	(1964-74)	3978 781	18-103-003
A19	MAINSHAFT 1ST/2ND SYNCHRONIZER SNAPRING ^&			
	ALL	(1963)	3832 626	3832 626
A20	MAINSHAFT 1ST/2ND SYNCHRONIZER ASSY			
	DID YOU KNOW? 'Torque-lock' describes a design where the Clutch splines are relieved ('back tapered') behind the pointing; under load the sliding clutch is pulled into the clutch ring. 'Torque-lock' clutches shift slower and accelerate clutch, clutch ring and shift fork wear, but may enable a worn gear to serve a little longer. If tight tolerances are maintained (as they are in AutoGear parts) they will otherwise be unnecessary.			
	W/O 'TORQUE LOCK'	(1963-65)	3831 733	3831 733
	NOTE: For service use Synchronizer Kit 18-590-011-2x which includes TWO (2) pieces of Synchronizer Ring WT297-14D.			
	W/ 'TORQUE LOCK'	(1963-65)		
	NOTE: For service use Synchronizer Kit 18-590-013-2x which includes TWO (2) pieces of Synchronizer Ring WT297-14D.			
	NOTE: These TWO (2) Synchronizer Assemblies must be used with Synchronizer Rings without a support shoulder.			
	W/O 'TORQUE LOCK'	(1966-74)	3924 112	18-590-011
	W/ 'TORQUE LOCK'	(1966-74)		18-590-013
	NOTE: These TWO (2) Synchronizer Assemblies must be used with Synchronizer Rings with a support shoulder.			
A20-1	CLUTCH			
	W/O 'TORQUE LOCK'			18-089-002
	W/ 'TORQUE LOCK'			18-089-004
A20-2	HUB			
	8 SPLINE	(1963-65)	NSS	NSS
	NOTE: This ONE (1) Hub is 1.250" wide over the external splines and must be used with Synchronizer Rings without a support shoulder.			
	8 SPLINE W/O IDENTIFICATION GROOVE	(1966-74)	NSS	18-090-002
	NOTE: Nitrided. Used with 36 spline clutches w/o torque-lock.			
	8 SPLINE W/ IDENTIFICATION GROOVE	(1966-74)	NSS	18-090-003
	NOTE: Nitrided and tumble deburred. Used with 36 spline torque-lock clutches.			
	NOTE: These TWO (2) Hubs are 1.025" wide over the external splines and must be used with Synchronizer Rings with a support shoulder.			
A20-3	STRUT ^%			
	ALL	REQ. 3	3915 050	3915050
A20-4	SPRING ^%			
	ALL	(1963)	591 914	591 914
	ALL	(1964-65)	3853 805	3853 805
	ALL	(1966-74)	3920 775	3920 775
	NOTE: These THREE (3) springs offer various spring rates (lbs/inch deflection). Requires 2 per synchronizer.			



GENERAL MOTORS 'MUNCIE' 4-SPEED

A21 MAINSHAFT 1ST/2ND SYNCHRONIZER RING ^%

DID YOU KNOW? Synchronizers and Synchronizer Rings are typically the most critically engineered components in a modern manual-shift automotive transmission. Very small differences in angles, dimensions, machining accuracy or materials here can make very large differences in durability or performance. As the savings to be had are small and the costs might be large, this is not a good place to economize. Contact us if you'd like to know more.

S36T: FORGED W/O SHOULDER

REQ. 2

3831 742

WT297-14C

NOTE: Officially 1963-65 but may be found in later rebuilt gearboxes. Check carefully before ordering.

S36T: FORGED W/ SHOULDER

REQ. 2

3880 850

WT297-14D

NOTE: Officially 1966-74 but may be found in earlier rebuilt gearboxes. Check carefully before ordering.

A22 MAINSHAFT 2ND GEAR

L30-S36T: M20/M21

3831 746

18-080-018

L30-S36T: M22

3879 999

18-080-019

A23 MAINSHAFT 3RD GEAR

L27-S36T: M20/M21

3831 747

18-080-007

L27-S36T: M22

3880 845

18-080-008

A24 MAINSHAFT 3RD/4TH SYNCHRONIZER ASSY

DID YOU KNOW? 'Torque-lock' describes a design where the Clutch splines are relieved ('back tapered') behind the pointing; under load the sliding clutch is pulled into the clutch ring. 'Torque-lock' clutches shift slower and accelerate clutch, clutch ring and shift fork wear, but may enable a worn gear to serve a little longer. If tight tolerances are maintained (as they are in AutoGear parts) they will otherwise be unnecessary.

W/O 'TORQUE LOCK'

(1963-65)

3887 887

3887 887

NOTE: For service use Synchronizer Kit 18-590-012-2x which includes TWO (2) pieces of Synchronizer Ring WT297-14D.

W/ 'TORQUE LOCK'

(1963-65)

NOTE: For service use Synchronizer Kit 18-590-014-2x which includes TWO (2) pieces of Synchronizer Ring WT297-14D.

NOTE: These TWO (2) Synchronizer Assemblies must be used with Synchronizer Rings without a support shoulder.

W/O 'TORQUE LOCK'

3924 113

18-590-012

W/ 'TORQUE LOCK'

18-590-014

NOTE: These TWO (2) Synchronizer Assemblies must be used with Synchronizer Rings with a support shoulder.

A24-1 CLUTCH

W/O 'TORQUE LOCK'

18-089-002

W/ 'TORQUE LOCK'

18-089-004

A24-2 HUB

8 SPLINE

(1963-65)

NSS

NSS

NOTE: This ONE (1) Hub is 1.250" wide over the external splines and must be used with Synchronizer Rings without a support shoulder.

8 SPLINE W/O IDENTIFICATION GROOVE

(1966-74)

NSS

18-090-002

NOTE: Nitrided. Used with 36 spline clutches w/o torque-lock.

8 SPLINE W/ IDENTIFICATION GROOVE

(1966-74)

NSS

18-090-003

NOTE: Nitrided and tumble deburred. Used with 36 spline torque-lock clutches.

NOTE: These TWO (2) Hubs are 1.025" wide over the external splines and must be used with Synchronizer Rings with a support shoulder.

A24-3 STRUT ^%

ALL

REQ. 3

3915 050

3915 050

A24-4 SPRING ^%

ALL

(1963)

591 914

591 914

ALL

(1964-65)

3853 805

3853 805

ALL

(1966-74)

3920 775

3920 775

NOTE: These THREE (3) springs offer various spring rates (lbs/inch deflection). Requires 2 per synchronizer.

A25 MAINSHAFT 3RD/4TH SYNCHRONIZER RING ^%

DID YOU KNOW? Synchronizers and Synchronizer Rings are typically the most critically engineered components in a modern manual-shift automotive transmission. Very small differences in angles, dimensions, machining accuracy or materials here can make very large differences in durability or performance. As the savings to be had are small and the costs might be large, this is not a good place to economize. Contact us if you'd like to know more.

S36T: FORGED W/O SHOULDER

REQ. 2

3831 742

WT297-14C

NOTE: Officially 1963-65 but may be found in later rebuilt gearboxes. Check carefully before ordering.

S36T: FORGED W/ SHOULDER

REQ. 2

3880 850

WT297-14D

NOTE: Officially 1966-74 but may be found in earlier rebuilt gearboxes. Check carefully before ordering.

A26 MAINSHAFT 3RD/4TH SYNCHRONIZER SNAPRING ^&

ALL

3831 741

3831 741



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GENERAL MOTORS 'MUNCIE' 4-SPEED

A27	MAINSHAFT			
	27 SPLINE: 21.15" LONG	(1963)	3831 753	
	27 SPLINE: 21.15" LONG	(1964-70)	3915 087	AWT297-2A
	NOTE: For service use lightweight Mainshaft 18-171-001.			
	27 SPLINE: 27.50" LONG	(1964-70)	388 838	WT297-2D
	32 SPLINE: 21.78" LONG	(1971-74)	3979 759	WT297-2G
	NOTE: For service use lightweight Mainshaft 18-171-002.			
A28	MAINSHAFT EXTENSION ASSY			
	#3831731: 27 SPLINE MAINSHAFT	(1963)		
	#3846429: 27 SPLINE MAINSHAFT	(1964-65)		
	NOTE: These TWO (2) Mainshaft Extensions are used with 21.15" long mainshafts.			
	#9779246: 27 SPLINE MAINSHAFT	(1964-65)		
	NOTE: This ONE (1) Mainshaft Extension is used with 27.50" long mainshafts.			
	NOTE: These THREE (3) Mainshaft Extension Assemblies have the speedometer drive on the shift cover side.			
	#3857584: 27 SPLINE MAINSHAFT	(1966-70)	3857 583	3857 583
	#3978764: 32 SPLINE MAINSHAFT	(1971-74)	3978 763	3978 763
	NOTE: These TWO (2) Mainshaft Extension Assemblies have the speedometer drive on the closed case side.			
A28-1	MAINSHAFT EXTENSION			
	ALL		NSS	NSS
A28-2	MAINSHAFT BUSHING ^#			
NOTE: For accuracy production Mainshaft Bushings are reamed in place; service bushings are not and provide limited slip yoke support.				
	SERVICE BUSHING: 27 SPLINE MAINSHAFTS	6260 048	6260 048	
	SERVICE BUSHING: 32 SPLINE MAINSHAFTS	3978 765	3978 765	
A29	MAINSHAFT OILSEAL ^#			
	27 SPLINE: CHICAGO RAWHIDE #15041	(1963-70)	1243 402	15041CR
	32 SPLINE: CHICAGO RAWHIDE #18992	(1971-74)	8626 009	18992CR
A30	REVERSE SHIFT LEVER OILSEAL ^#			
	CHICAGO RAWHIDE #7410		3831 716	0-044-012
A31	MAINSHAFT EXTENSION GASKET ^@			
	ALL		3911 901	18-045-104
A32	MAINSHAFT EXTENSION FASTENERS			
	3/8-16 X 2 SHCS	REQ. 3		0-183-013
	3/8 HI-COLLAR L'WASHER	REQ. 3		0-047-009
	7/16-14 X 2 SHCS	AS REQ.		0-183-011
	7/16-14 X 2-1/2 SHCS	AS REQ.		0-183-014
	7/16 HI-COLLAR L'WASHER	REQ. 3		0-047-010

GENERAL MOTORS 'MUNCIE' 4-SPEED

GROUP B: MAINDRIVE AND RETAINER



B1	MAINDRIVE BEARING NUT ^# ALL		591 150	591 150
B4	MAINDRIVE BEARING ^# 207 BEARING: ND-H #47207 307 BEARING: ND-H #41307B2 NOTE: New Departure #41307B2 is a discontinued 'max' bearing with 12 balls. For service use 'conrad' bearing 307SG10 with 8 balls. Performance will not be degraded in most applications; if concerned, contact us before substituting.	(1963) (1964-74)	907 930 907 572	6207NR/C3 307MG2
B5	MAINDRIVE BEARING/CASE SNAPRING ^& 207 BEARING 307 BEARING	(1963) (1964-74)	2830 050	0-139-005
B6	MAINDRIVE OIL SLINGER ^ ALL	AS REQ.	3925 692	18-036-001
B7	MAINDRIVE GEAR NOTE: Maindrives with '18-' part numbers have AutoGear design heads that move the synchronizer cone rearward .030", narrowing the gap found on the fourth gear side of GM production without adding shims or creating mainshaft pilot interference. Maindrives with 'AWT' or 'WT' part numbers have the original GM design.			
	L24-S36T: M20 10 SPLINE	(1963-65)	3831 767	AWT297-16A
	L21-S36T: M20 10 SPLINE	(1966-70)	3925 689	18-085-005
	L21-S36T: M20 26 SPLINE	(1971-74)	3978 772	AWT297-16C
	L26-S36T: M21 10 SPLINE	(1963-70)	3925 690	AWT297-16
	L26-S36T: M21 26 SPLINE	(1971-74)	3978 773	AWT297-16D
	L26-S36T: M22 10 SPLINE	(1966-70)	3925 691	18-085-007
	L26-S36T: M22 26 SPLINE	(1971-74)	3978 761	18-085-008
B8	MAINSHAFT PILOT BEARING ASSY ^ ALL		9419 248	JV44-1419
B8-1	MAINSHAFT PILOT ROLLERS & ALL	REQ. 17	NSS	NSS
B8-2	MAINSHAFT PILOT ROLLER CAGE ALL		NSS	NSS
B9	MAINDRIVE RETAINER NOTE: GM used hex head capscrews (HHCS); these can interfere with the clutch housing during installation if the flats are not oriented properly. To make things easier we use socket head capscrews (SHCS) and counterbore the retainer to recover the axial clearance lost over the taller SHCS assemblies.			
	#604932: 207 BEARING	(1963)	604 932	604 932
	#3851326: 307 BEARING	(1964-67)	3851 326	3851 326
	NOTE: Thin flange casting. For service use Maindrive Retainer Kit 18-027-018-1x (includes B11 Maindrive Retainer Fasteners).			
	#3915020: 307 BEARING	(1968-74)	3915 020	18-027-001
	NOTE: Thick flange casting. For service use Maindrive Retainer Kit 18-027-018-1x (includes B11 Maindrive Retainer Fasteners).			
B10	MAINDRIVE RETAINER GASKET ^@@ DID YOU KNOW? The amount gaskets compress changes with fastener torque and ambient humidity. Gaskets also 'relax' slightly after installation; whenever possible, retorque gasket control fasteners 24 hours after assembly. Regarding the Maindrive Retainer Gasket, use the thinnest new gasket providing positive Maindrive Gear Assembly float when compressed by 0.003-.004". Torquing a gasket too thin will usually crack the Maindrive Retainer.			
	207 BEARING: .030" THICK	(1963)	591 023	T10D-145
	307 BEARING: .015" THICK	(1964-74)		18-045-105
	307 BEARING: .030" THICK	(1964-74)	3915 019	18-045-101
B11	MAINDRIVE RETAINER FASTENERS 3/8-16 X 3/4 HHCS NOTE: Special design used with 1/2 socket or wrench (standard for the thread is 9/16 over flats). 3/8 LOCKWASHER NOTE: These TWO (2) items are used with a 207 bearing—1963 only. LOCKPLATE: RIGHT HAND LOCKPLATE: LEFT HAND 3/8-16 X 1 HHCS NOTE: These THREE (3) items are used with a 307 bearing—1964-74. Lockplates are not compatible with AutoGear Main Drive Retainer Kit 18-027-018-1x.	REQ. 4 REQ. 4 REQ. 4	3849 938 3849 937 186 678	3849 938 3849 937 186 678

GENERAL MOTORS 'MUNCIE' 4-SPEED

GROUP C: COUNTERSHAFTS AND CASE



C1 COUNTERSHAFT CLUSTER GEAR

NOTE: Countershaft Cluster Gears with '18-' part numbers have an integrated Countershaft Roller Tube and AutoGear's 'barrel form' shaft for greater rigidity. All others have General Motors original design and require the spacer tube.

R27-22-19-17T: M21	(1963-65)	3831 727	WT297-8
R29-22-19-17T: M20	(1963-65)	3831 728	WT297-8A
NOTE: These TWO (2) gears are used with a 7/8 inch diameter Countershaft.			
R27-22-19-17T: M21	(1966-74)	3905 465	WT297-8D
R25-22-19-17T: M20	(1966-74)	3905 463	18-077-007
R27-22-19-17T: M22	(1966-74)	3905 466	18-077-001

NOTE: These THREE (3) gears are used with a 1 inch diameter Countershaft.

C2	COUNTERSHAFT			
	7/8 INCH DIAMETER	(1963-65)	3831 725	WT297-3
	1 INCH DIAMETER	(1966-74)	3864 850	18-068-018
C4	COUNTERSHAFT THRUST WASHER ^&			
	7/8 INCH COUNTERSHAFT	REQ. 2	3831 729	3831 729
	1 INCH COUNTERSHAFT	REQ. 2	3864 860	18-193-001
C5	COUNTERSHAFT ROLLERS ^&			
	7/8 INCH COUNTERSHAFT	REQ. 80	3709 328	S443Q
	1 INCH COUNTERSHAFT	REQ. 112	435 847	C407Q
C6	COUNTERSHAFT ROLLER SPACER ^&			
	7/8 INCH COUNTERSHAFT	REQ. 6	3709 324	3709 324
	1 INCH COUNTERSHAFT	REQ. 6	3864 856	3864 856
C7	COUNTERSHAFT ROLLER TUBE			
	7/8 INCH COUNTERSHAFT	(1963-65)		
	1 INCH COUNTERSHAFT	(1966-74)	3912 195	3912 195
C8	IDLER GEAR THRUST WASHER (FRONT) ^& ALL		3834 739	18-193-003
C9	IDLER GEAR (FRONT)			
	L18-S27T: M20/21		3831 762	18-084-002
	L18-S27T: M22		3879 997	18-084-003
C10	IDLER GEAR ASSEMBLY (REAR)			
	L17-S27T		3831 764	18-584-001
C10-1	IDLER GEAR (REAR)			
	ALL		NSS	NSS
C10-2	IDLER GEAR BUSHING			
	ALL	REQ. 2	NSS	NSS
C11	IDLER GEAR THRUST WASHER (REAR) ^& ALL		3774 909	3774 909
C12	IDLER SHAFT ALL		3831 761	18-068-016
C13	IDLER SHAFT LOCKPIN ^& OPTIONAL OPTIONAL			590 832 456 722



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GENERAL MOTORS 'MUNCIE' 4-SPEED

C14	CASE (ASSY)			
	#3831704: 207 MAINDRIVE BEARING	(1963)	3831 702	3831 702
	#3851325: 307 MAINDRIVE BEARING	(1964-65)	3851 324	3851 324
	NOTE: These TWO (2) Cases are used with a 7/8 inch countershaft.			
	#3885010	(1966-67)		
	#3925660	(1968-70)		
	#3925661	(1968-74)		
	NOTE: These TWO (2) Cases appear to be dimensionally identical. GM used them optionally in 1968-69.			
	NOTE: These THREE (3) Cases are used with a 1 inch countershaft.			
C16	FILL PLUG			
	1/2-14 PIPE THREAD: SOCKET HEAD		445 751	445 751
C17	DRAIN PLUG			
	1/2-14 PIPE THREAD: SQUARE HEAD MAGNETIC			0-052-005

GENERAL MOTORS 'MUNCIE' 4-SPEED

GROUP D: INTERNAL SHIFT LINKAGE



D1	1ST/2ND SHIFT FORK #18-096-903: INVESTMENT CAST STEEL		3831 717	18-096-005
D2	1ST/2ND SHIFT LEVER ASSY 5/16-18 EXTERNAL THREAD (1963-68) 3/8-16 INTERNAL THREAD W/O SWITCH (1969) <i>NOTE: These TWO (2) Lever Assemblies are used with short shift tower Shift Covers. If used with tall shift tower covers the Shift Cover assembly will bind when the shifter is installed.</i> 3/8-16 INTERNAL THREAD W/ SWITCH (1970-74) <i>NOTE: This ONE (1) Lever Assembly is used with tall shift tower Shift Covers. If used with short shift tower covers the shift lever assembly will have excessive axial float when the shifter is installed.</i>		3831 709 3950 308 3952 649	3831 709 3950 308 3952 649
D3	3RD/4TH SHIFT FORK #18-096-903: INVESTMENT CAST STEEL		3831 717	18-096-005
D4	3RD/4TH SHIFT LEVER ASSY 5/16-18 EXTERNAL THREAD (1963-68) 3/8-16 INTERNAL THREAD W/O SWITCH (1969) 3/8-16 INTERNAL THREAD W/ SWITCH (1969) <i>NOTE: This ONE (1) Lever Assembly marked with yellow paint.</i> <i>NOTE: These THREE (3) Lever Assemblies are used with short shift tower Shift Covers. If used with tall shift tower covers the Shift Cover assembly will bind when the shifter is installed.</i> 3/8-16 INTERNAL THREAD W/ SWITCH (1970-74) <i>NOTE: This ONE (1) Lever Assembly marked with red paint.</i> <i>NOTE: This ONE (1) Lever Assembly is used with tall shift tower Shift Covers. If used with short shift tower covers the shift lever assembly will have excessive axial float when the shifter is installed.</i>		3831 709 3950 308 3950 472 3952 649	3831 709 3950 308 3950 472 3952 649
D5	SHIFT COVER ASSY (PARTIAL) #3831707 (1963-65) #3884685 (1966-68) <i>NOTE: These TWO (2) Shift Covers used with externally threaded Shift Lever Assemblies.</i> #3950306: W/O TCS SWITCH (1969) #3952648: W/ TCS SWITCH (1969) <i>NOTE: These TWO (2) Shift Covers have short shift towers. If used with Shift Lever Assemblies designed for tall shift towers the lever assemblies will have excessive axial float when the shifter is installed.</i> #3952642: W/O TCS SWITCH (1970-74) #335308 : W/O TCS SWITCH (1970-74) <i>NOTE: These TWO (2) Shift Covers have tall shift towers. If used with Shift Lever Assemblies designed for short shift towers the Shift Cover assembly will bind when the shifter is installed.</i> <i>NOTE: These FOUR (4) Shift Covers used with internally threaded Shift Lever Assemblies.</i>		3831 707 3977 618 3952 647	3831 707 3977 618 3952 647
D5-1	SHIFT COVER ALL		NSS	NSS
D5-3	DOWEL PIN 3/16 X 1/2			0-043-010
D6	DETENT LEVER PIVOT W/O LOCATING HEAD <i>NOTE: To repair leaky Shift Cover use 18-043-002, ream pivot hole to 21/64 (.3281-.3283).</i> W/ LOCATING HEAD <i>NOTE: Ream Shift Cover pivot hole to 21/64 (.3281-.3283).</i>			18-043-002
D7	DETENT LEVERS ALL	REQ. 2	3905 462	18-014-004
D9	DETENT LEVER RETAINING C-CLIP ALL			0-139-020
D10	DETENT SPRING ALL		3831 718	18-156-002
D11	SHIFT LEVER OILSEAL ^# CHICAGO RAWHIDE #7410	REQ. 2	3831 716	0-044-012



GENERAL MOTORS 'MUNCIE' 4-SPEED

D12	SHIFT COVER GASKET ^@ ALL		3831 705	18-045-106
D13	SHIFT COVER FASTENERS 5/16-18 X 3/4 HHCS 5/16 L'WASHER	REQ. 7 REQ. 7	179 816 114 605	179 816 114 605
D14	REVERSE SHIFT FORK ALL		3832 786	18-096-003
D15	REVERSE SHIFT LEVER ASSY 5/16-18 EXTERNAL THREAD 3/8-16 INTERNAL THREAD	(1963-68) (1969-74)	3850 086 3950 312	3850 086 3950 312
D16	REVERSE DETENT SPRING ALL		3773 017	3773 017
D17	REVERSE DETENT BALL 3/8 GRADE 200 STEEL		453 593	453 593
D18	REVERSE SHIFT LEVER TAPER PIN ^& ALL		103 565	103 566

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