AUTO GEAR EQUIPMENT

GENERAL MOTORS

'MUNCIE' 4-SPEED MANUAL TRANSMISSION

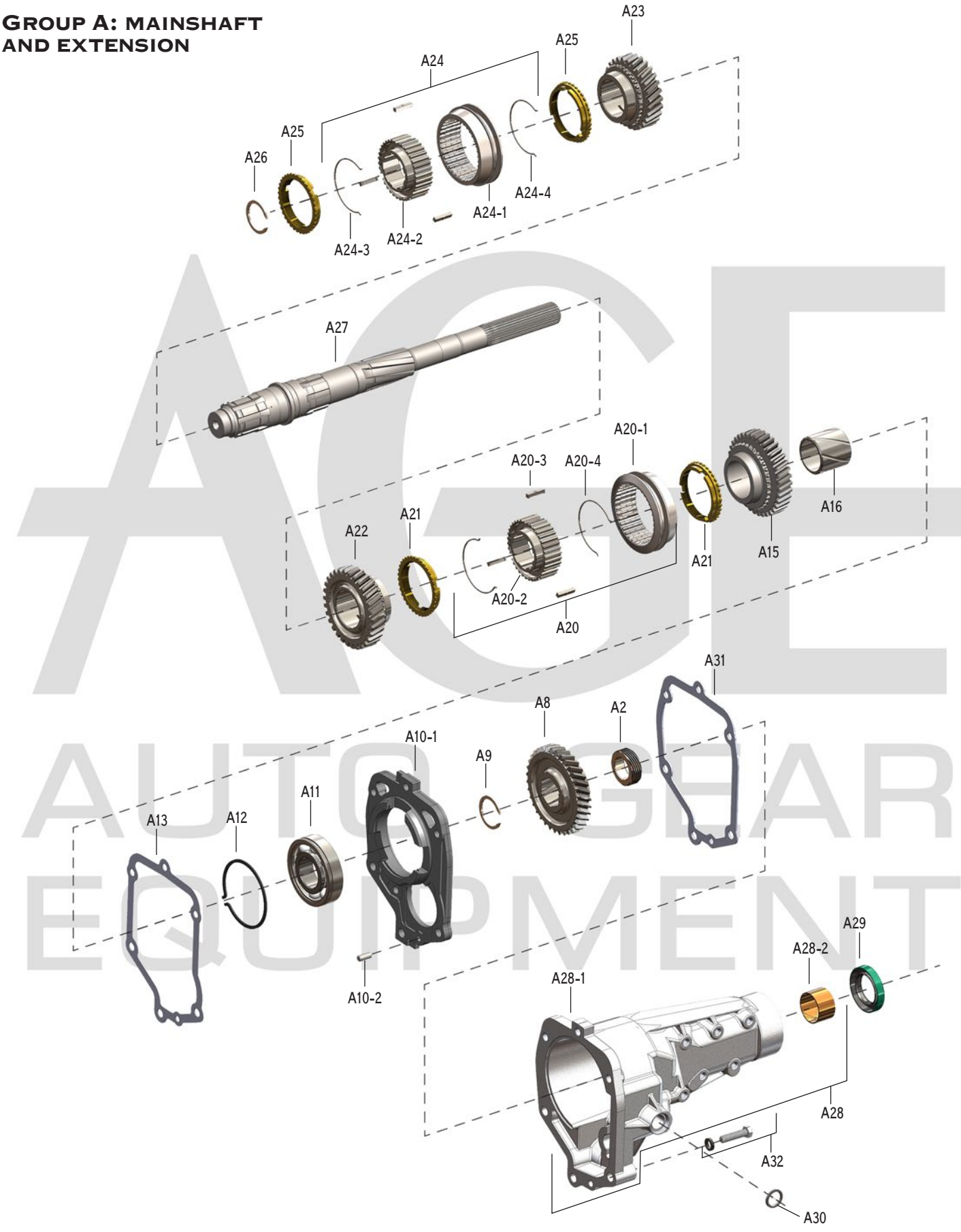
ASSEMBLIES, GEARS & PARTS

HIGH PERFORMANCE
1963–1974

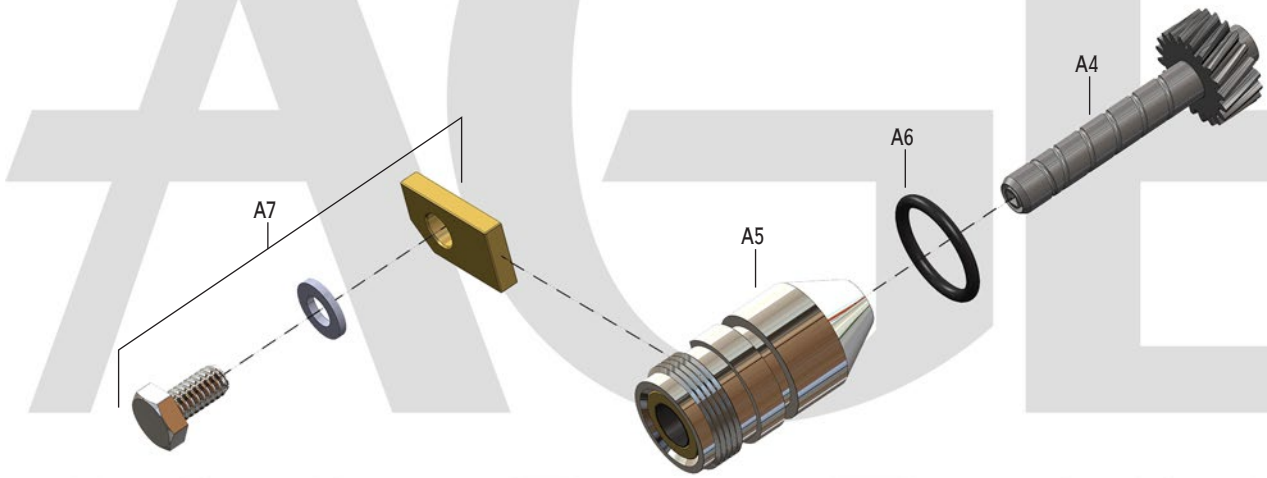
AUTO GEAR EQUIPMENT
530 State Fair Boulevard, Syracuse, NY 13204
(800) 634-3001, Inside New York: (315) 471-8141
Fax Numbers: (315) 471-8146 or (800) 537-4213
Email: service@autogear.net

GENERAL MOTORS 'MUNCIE' 4-SPEED

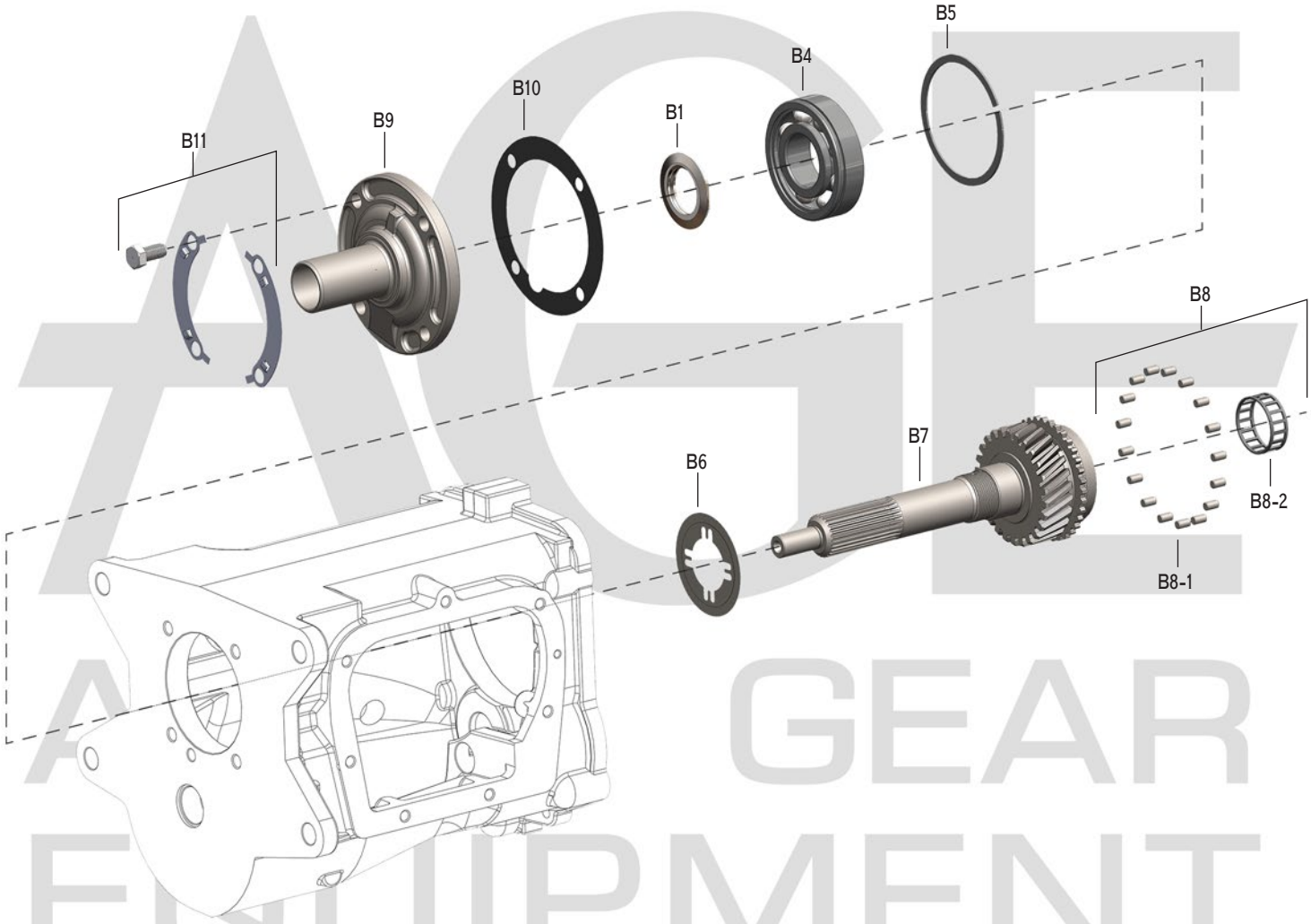
GROUP A: MAINSHAFT AND EXTENSION



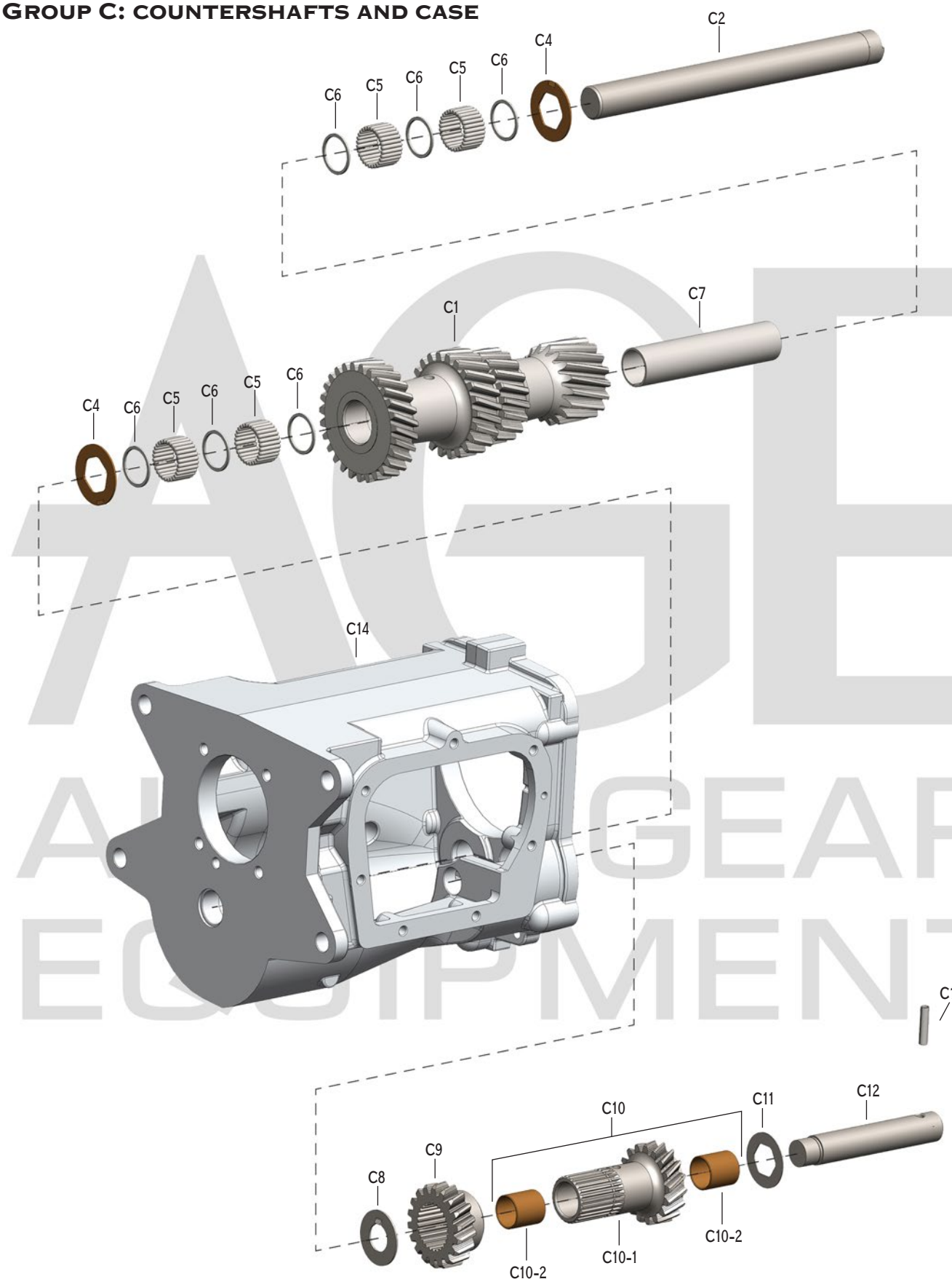
Group A: mainshaft and extension assembly (speedometer parts)



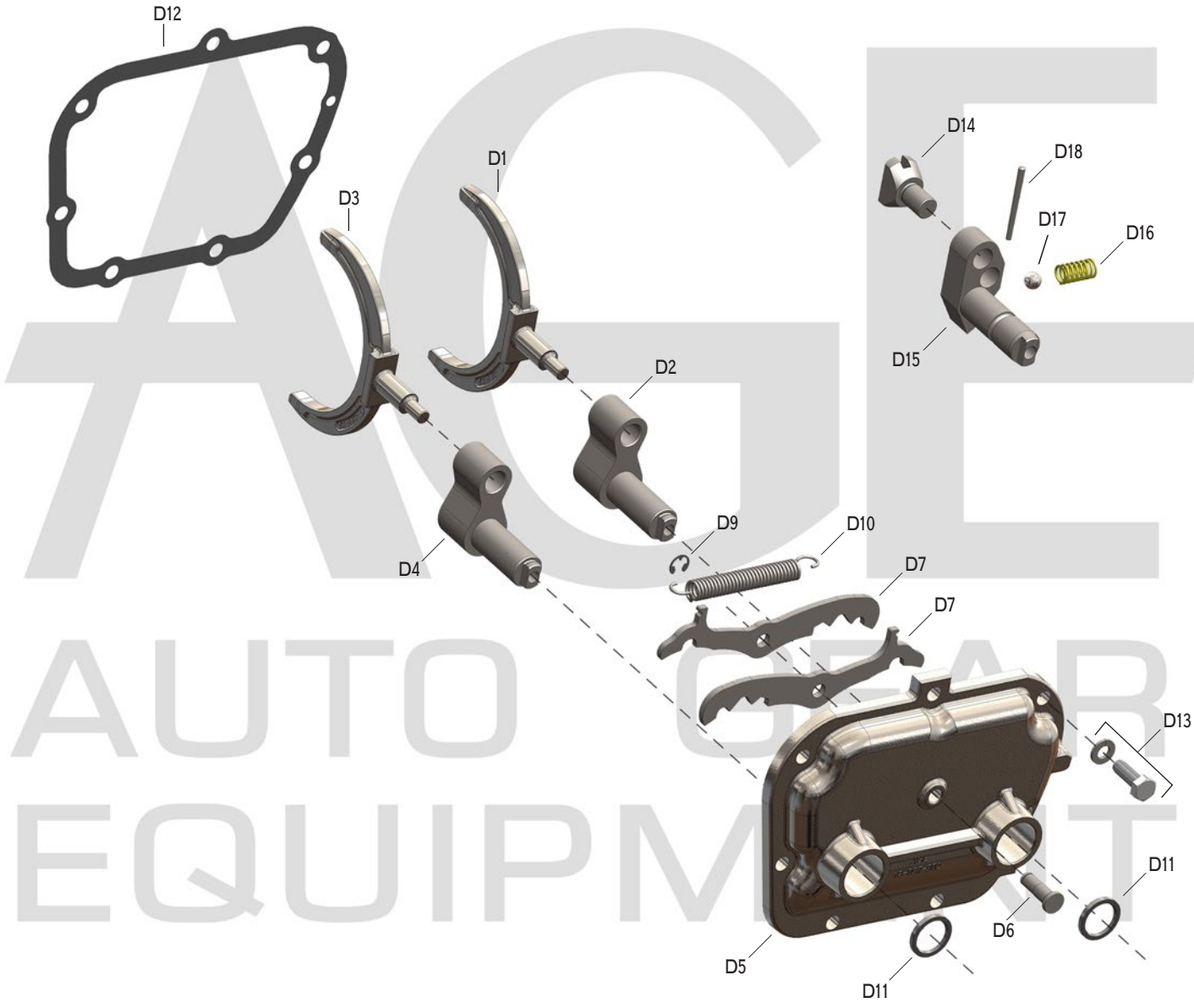
Group B: maindrive and retainer



Group C: countershafts and case



Group D: internal shift linkage



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 Auto Gear 'Syracuse' 4 Speed list, too.*

How do I read it? *All Auto Gear 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 Auto Gear part number in the right most column is a direct replacement, although the design may be different or improved.

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**

GROUP A: MAINSHAFT AND EXTENSION

A1	**Yoke Stop Snapring ^&**			
	27 spline mainshaft	(1963)	3707 191	3707 191
A2	**Speedometer Circle Gear**			
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.				
	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
NOTE: these SIX (6) gears have 1.84" outside diameter and 30mm bore; used with 27 spline mainshafts.				
	L7T steel: 1.84" od	(1971-74)		18-110-008
	L8T steel: 1.84" od	(1971-74)	3978 758	18-110-009
NOTE: these TWO (2) gears have 1.84" outside diameter and 35mm bore; used with 32 spline mainshafts.				
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
NOTE: this ONE (1) gear used with 1.92" outside diameter circle gear.				
	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
NOTE: these FOUR (4) gears used with 1.76" outside diameter circle gears.				
	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
NOTE: these SIX (6) gears used with 1.84" outside diameter circle gears.				
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 ^&**			
	all	as req.	3831 755	3831 755
	all	as req.	3831 756	3831 756
	all	as req.	3831 757	3831 757
	all	as req.	3831 758	3831 758
	all	as req.	3831 759	3831 759

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A10	**Mainshaft Bearing Support Assy**			
	#3831752: aluminum		**3831 752**	**3831 752**
A10-1	**Bearing Support**			
	all			**NSS**
A10-2	**Dowel Pin**			
	all			**0-043-011**
A11	**Mainshaft Bearing Assy ^#**			
	ND-H #43308AB1		**907 474**	**6308NR**
	NOTE: discard the bundled snapring.			
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**	**18-103-001**
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 Auto Gear 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'			**T85B-15**
	w/ 'torque lock'			**T85B-15A**
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.			

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 Auto Gear 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'			**T85B-15**
w/ 'torque lock'			**T85B-15A**

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**

A27	**Mainshaft**			
	27 spline: 21.15" long	**(1963)**	**3831 753**	**WT297-2**
	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**

GROUP B: MAINDRIVE AND RETAINER

B1 Maindrive Bearing Nut ^#

all		591 150	591 150

B4 Maindrive Bearing ^#

207 bearing: ND-H #47207	(1963)	907 930	6207NR/C3
307 bearing: ND-H #41307B2	(1964-74)	907 572	307MG2

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.

B5 Maindrive Bearing/Case Snapring ^&

207 bearing	(1963)		
307 bearing	(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 Auto Gear 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	WT297-16Z

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 18-027-005-1x (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 18-027-005-1x (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	req. 4		

NOTE: Special design used with 1/2 socket or wrench (standard for the thread is 9/16 over flats).

3/8 lockwasher	req. 4		

NOTE: These TWO (2) items are used with a 207 bearing—1963 only.

lockplate: right hand		3849 938	3849 938
lockplate: left hand		3849 937	3849 937
3/8-16 x 1 HHCS	req. 4	186 678	186 678

NOTE: These THREE (3) items are used with a 307 bearing—1964-74. Lockplates are not compatable with Auto Gear Main Drive Retainer Kit 18-027-005-1x.

GROUP C: COUNTERSHAFTS AND CASE

C1 Countershaft Cluster Gear

NOTE: Countershaft Cluster Gears with '18-' part numbers have an integrated Countershaft Roller Tube and Auto Gear'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	18-068-014

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	WT297-35

C13 Idler Shaft Lockpin ^&

optional			590 832
optional			456 722

C14 Case (Assy)

#3831704: 207 maindrive bearing	(1963)	3831 702	3831 702
#3851325: 307 maindrive bearing	(1964-65)	3851 324	3851324

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

AUTO GEAR EQUIPMENT

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)**	**3831 709**	**3831 709**
	3/8-16 internal thread w/o switch	**(1969)**	**3950 308**	**3950 308**
	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.			
	3/8-16 internal thread w/ switch	**(1970-74)**	**3952 649**	**3952 649**
	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.			
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)**	**3831 709**	**3831 709**
	3/8-16 internal thread w/o switch	**(1969)**	**3950 308**	**3950 308**
	3/8-16 internal thread w/ switch	**(1969)**	**3950 472**	**3950 472**
	NOTE: This ONE (1) Lever Assembly marked with yellow paint.			
	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.			
	3/8-16 internal thread w/ switch	**(1970-74)**	**3952 649**	**3952 649**
	NOTE: This ONE (1) Lever Assembly marked with red paint.			
	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.			
D5	**Shift Cover Assy (Partial)**			
	#3831707	**(1963-65)**	**3831 707**	**3831 707**
	#3884685	**(1966-68)**	**3977 618**	**3977 618**
	NOTE: These TWO (2) Shift Covers used with externally threaded Shift Lever Assemblies.			
	#3950306: w/o TCS switch	**(1969)**		
	#3952648: w/ TCS switch	**(1969)**	**3952 647**	**3952 647**
	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.			
	#3952642: w/o TCS switch	**(1970-74)**		
	#335308 : w/o TCS switch	**(1970-74)**		
	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.			
	NOTE: These FOUR (4) Shift Covers used with internally threaded Shift Lever Assemblies.			
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			
	NOTE: To repair leaky Shift Cover use 18-043-002, ream pivot hole to 21/64 (.3281-.3283).			
	w/ locating head			**18-043-002**
	NOTE: Ream Shift Cover pivot hole to 21/64 (.3281-.3283).			
D7	**Detent Levers**			
	all	**req. 2**	**3905 462**	**18-014-001**
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

AUTO GEAR EQUIPMENT

D12	Shift Cover Gasket ^@			
	all		3831 705	18-045-106
D13	Shift Cover Fasteners			
	5/16-18 x 3/4 HHCS	req. 7	179 816	179 816
	5/16 L'washer	req. 7	114 605	114 605
D14	Reverse Shift Fork			
	all		3832 786	18-096-003
D15	Reverse Shift Lever Assy			
	5/16-18 external thread	(1963-68)	3850 086	3850 086
	3/8-16 internal thread	(1969-74)	3950 312	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