



ES56-5A

*Parts Catalog*

*Bulletin No. T210-ES56-5A*

June 2000



# MODEL ES56-5A

## CONTENTS, RATIO TABLE and IDENTIFICATION

T210-ES56-5A

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### RATIO TABLE

#### MODEL ES56-5A

1st	7.16
2nd	3.89
3rd	2.17
4th	1.41
5th	1.00
Rev.	6.75

Parts listed in this catalog may no longer be available. Use with transmission superseding list.

### IDENTIFICATION

The Name Plate (NP-96) affixed to the RIGHT side of the Transmission is stamped with information:

Abbreviations used in this parts list include:

- N.S. — Not Shown
- N.S.S. — Not Sold Separately
- N.R. — Not Required

SERIAL

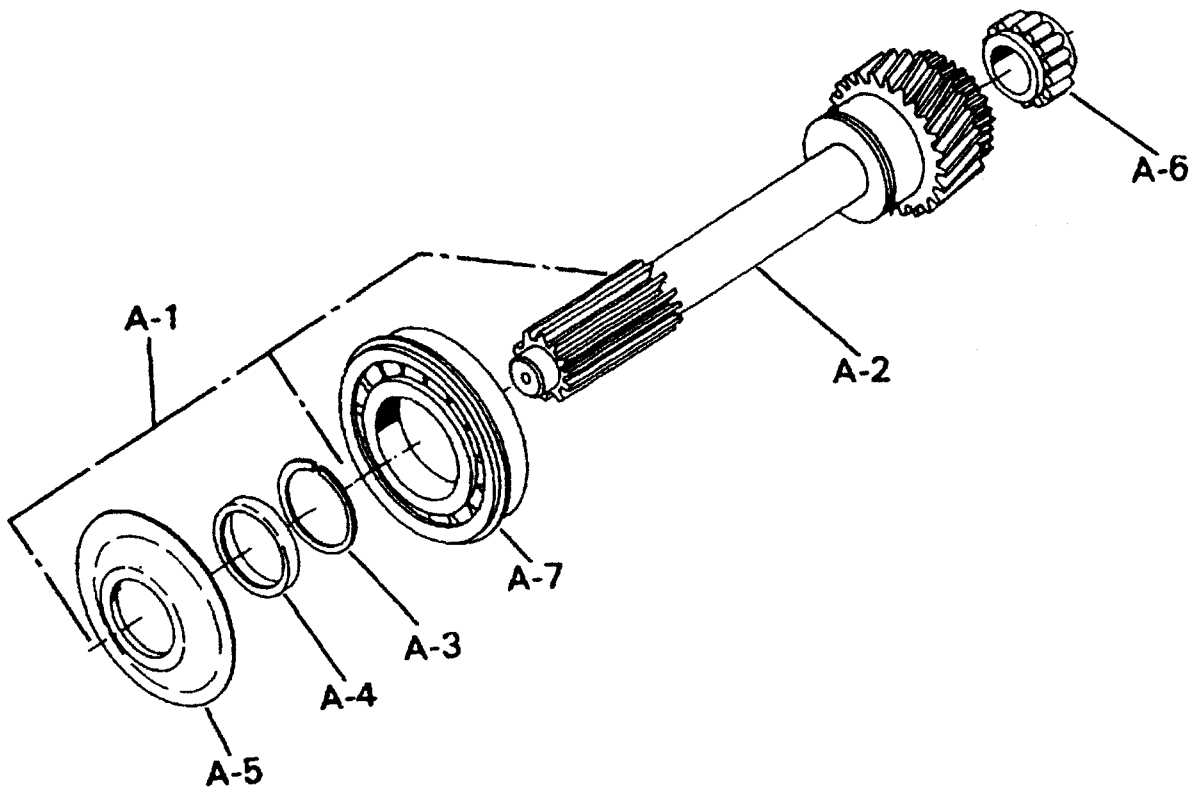
B/M No.  MODEL

In requesting more information on these transmissions, furnish the B/M No. and the Serial Number.

# ES56-5A GEARS and RELATED PARTS

T210-ES56-5A

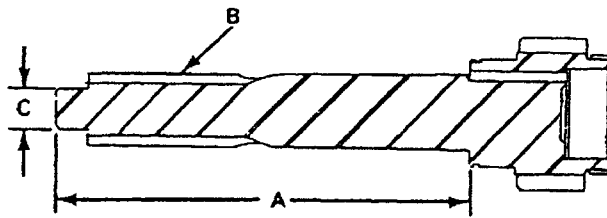
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# EASY SHIFT 5 SPEED MODELS GEARS and RELATED PARTS

T210-ES56-5A

Ref. No.	Part No.	Description	Qty.
A-1	<b>See Tab Bills</b>	<b>Drive Gear Group</b> Drive Gear - Sub-Assembly (includes A-2 thru A-5)	1
A-2	<b>N.S.S.</b>	Drive Gear (see table below)	1
A-3	<b>82-381-2</b>	Snap Ring	1
A-4	<b>101-468-2</b>	Oil Ring	1
A-5	<b>101-468-1</b>	Baffle - Oil	1
A-6	<b>56-482-1</b>	Bearing - Mainshaft Pocket	1
A-7	<b>101-482-1</b>	Bearing - Drive Gear	1



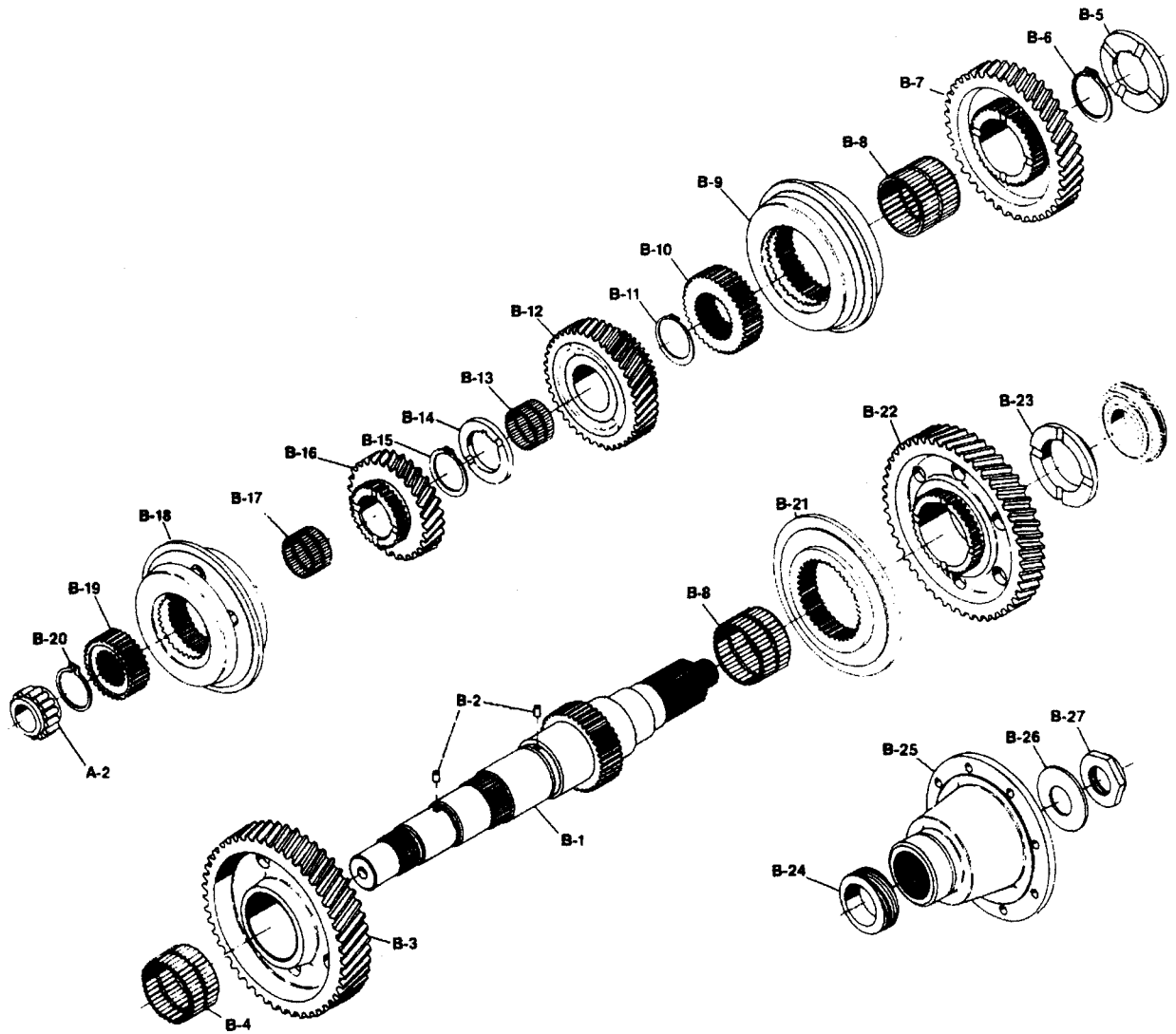
### DRIVE GEAR TABLE

Teeth	A Input Shaft Length	B Spline Dia. & No. of Teeth	C Pilot Size	Drive Gear Sub-Assembly (Includes 49-468-2)
22T	9.89"	1.750"-10 spline	.9837"	56-35-3-1X
22T	9.89"	1.750"-10 spline	1.180"	56-35-4-1X
22T	9.89"	1.500"-10 spline	.9837"	56-35-7-1X
22T	9.89"	1.500"-10 spline	1.180"	56-35-6-1X

N.S.S. - Not Sold Separately

# MODEL ES56-5A GEARS and RELATED PARTS

T210-ES56-5A



# EASY SHIFT 5 SPEED MODELS (560 lb-ft)

## GEARS and RELATED PARTS

T210-ES56-5A

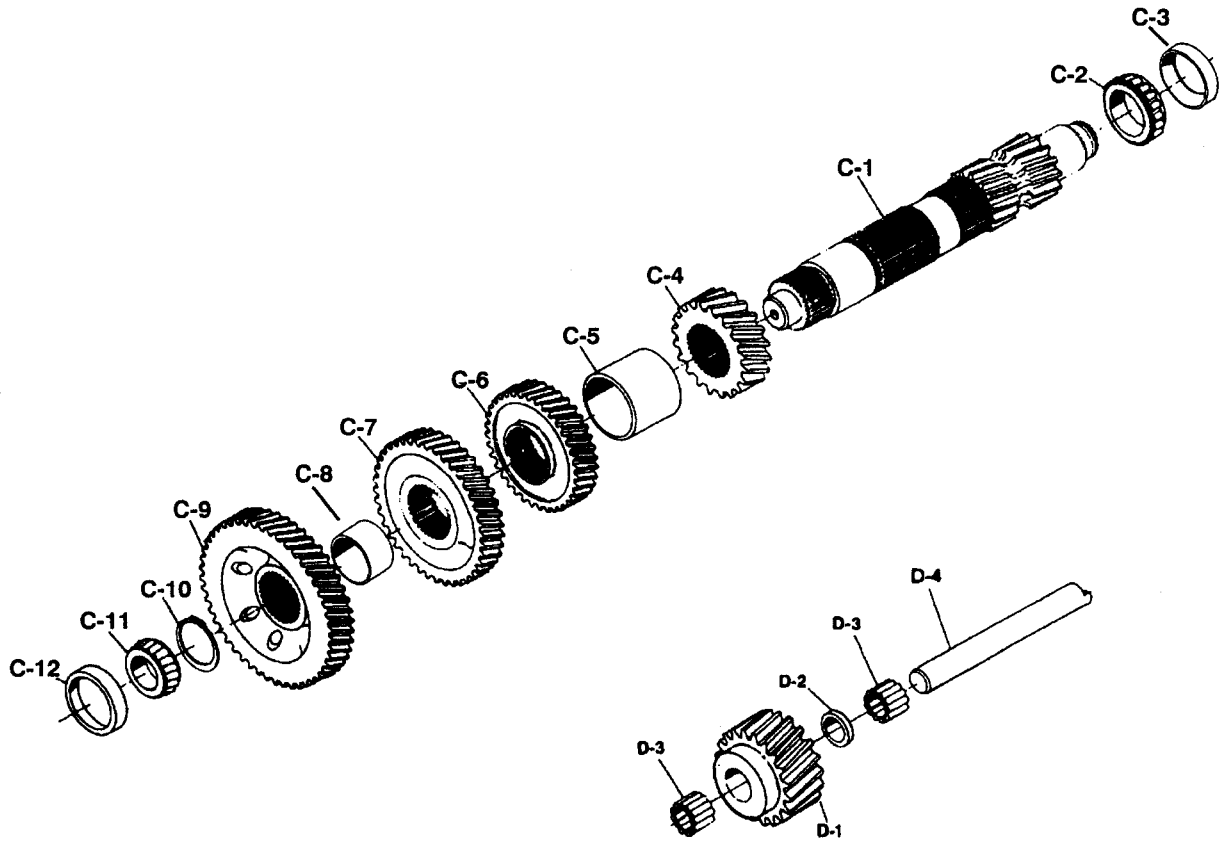
Ref. No.	Part No.	Description	Qty.
<b>Mainshaft Group - Output</b>			
B-1	56-362-1	Mainshaft	1
B-2	545087	Pin - Thrust Washer Lock	2
B-3	56-8-16	Gear - 1st Speed Mainshaft (35T)	1
B-4	550991	Bearing - 1st Speed Needle	1
B-5	49-47-1	Washer - 1st & 2nd Speed Thrust	1
B-6	49-381-1	Snap Ring - 1st & 2nd Thrust Washer	1
B-7	56-8-12	Gear - 2nd Speed Mainshaft (38T)	1
B-8	550963	Bearing - 2nd & Reverse Needle	2
B-9	49-464-1X	Synchronizer - 2nd & 3rd Mainshaft	1
B-10	101-466-4	Gear - 2nd & 3rd Mainshaft Clutch	1
B-11	40-381-4	Snap Ring - 2nd & 3rd Clutch Gear	1
B-12	56-8-13	Gear - 3rd Speed Mainshaft (34T)	1
B-13	550968	Bearing - 3rd Speed Gear	1
B-14	49-47-2	Washer - 3rd & 4th Speed Thrust	1
B-15	40-381-3	Snap Ring - 3rd & 4th Thrust Washer	1
B-16	56-8-15	Gear - 4th Speed Mainshaft (22T) (for ES46-5A)	1
B-17	550990	Bearing - 4th Speed Gear	1
B-18	101-464-1X	Synchronizer - 4th & 5th Mainshaft	1
B-19	56-466-1	Gear - 4th & 5th Speed Clutch (33T)	1
B-20	40-381-1	Snap Ring - 4th & 5th Speed Clutch Gear	1
B-21	101-465-7	Clutch Collar- 1st & Rev.	1
B-22	56-8-17	Gear - Reverse (33T)	1
B-23	101-47-4	Washer - Reverse Thrust	1
B-24	See Tab Bills	Gear - Speedometer Drive	1
B-25	See Tab Bills	Companion Flange or End Yoke	1
B-26	53-205-1	Washer - Mainshaft Nut	1
B-27	501200	Nut - Mainshaft (1 1/4" - 18)	1

N.S.S. - Not Sold Separately

# MODEL ES56-5A GEARS and RELATED PARTS

T210-ES56-5A

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## EASY SHIFT 5 SPEED MODELS (560 lb-ft) CASE GROUP and RELATED PARTS

T210-ES56-5A

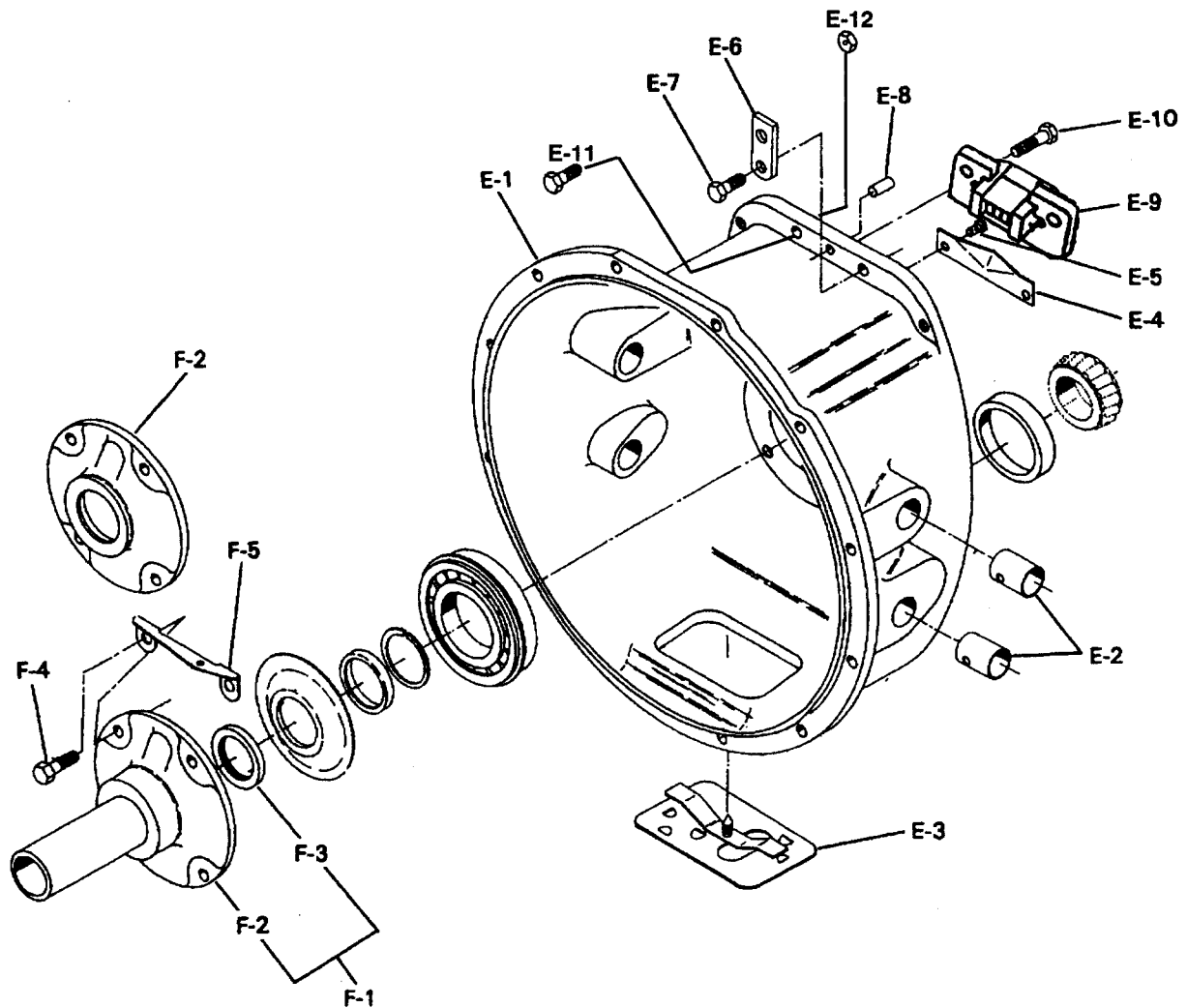
Ref. No.	Part No.	Description	Qty.
<b>Countershaft Group</b>			
C-1	56-30-3	Countershaft (without P.T.O. drive)	1
C-2	550868	Cone - Bearing - Countershaft Rear	1
C-3	550978	Cup - Bearing - Countershaft Rear	1
C-4	56-196-9	Gear - 2nd Speed Countershaft (20T)	1
C-5	49-37-5	Spacer - 2nd & 3rd Speed Countershaft Gear	1
C-6	56-196-10	Gear - 3rd Speed Countershaft (32T)	1
C-7	56-196-12	Gear - 4th Speed, Countershaft (32T) for ES56-5A	1
C-8	56-37-2	Spacer - 4th & 5th Speed Countershaft Gear	1
C-9	56-1-3	Gear - Drive (44T) Countershaft	1
C-10	56-381-1	Snap Ring - Countershaft Drive Gear	1
C-11	550868	Cone - Bearing - Countershaft Front	1
C-12	550978	Cup - Bearing - Countershaft Front	1
<b>Reverse Idler Group</b>			
D-1	56-5-3	Gear - Reverse Idler (17T)	1
D-2	49-37-7	Spacer - Bearing Reverse Idler Gear	1
D-3	550886	Bearing - Reverse Idler	2
D-4	63-60-1	Shaft - Idler Gear	1

N.S.S. - Not Sold Separately



**ES56-5A**  
**CLUTCH HOUSING and DRIVE GEAR BEARING CAP GROUP**  
**T210-ES56-5A**

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**ES56-5A**  
**CLUTCH HOUSING and DRIVE GEAR BEARING CAP GROUP**

T210-ES56-5A

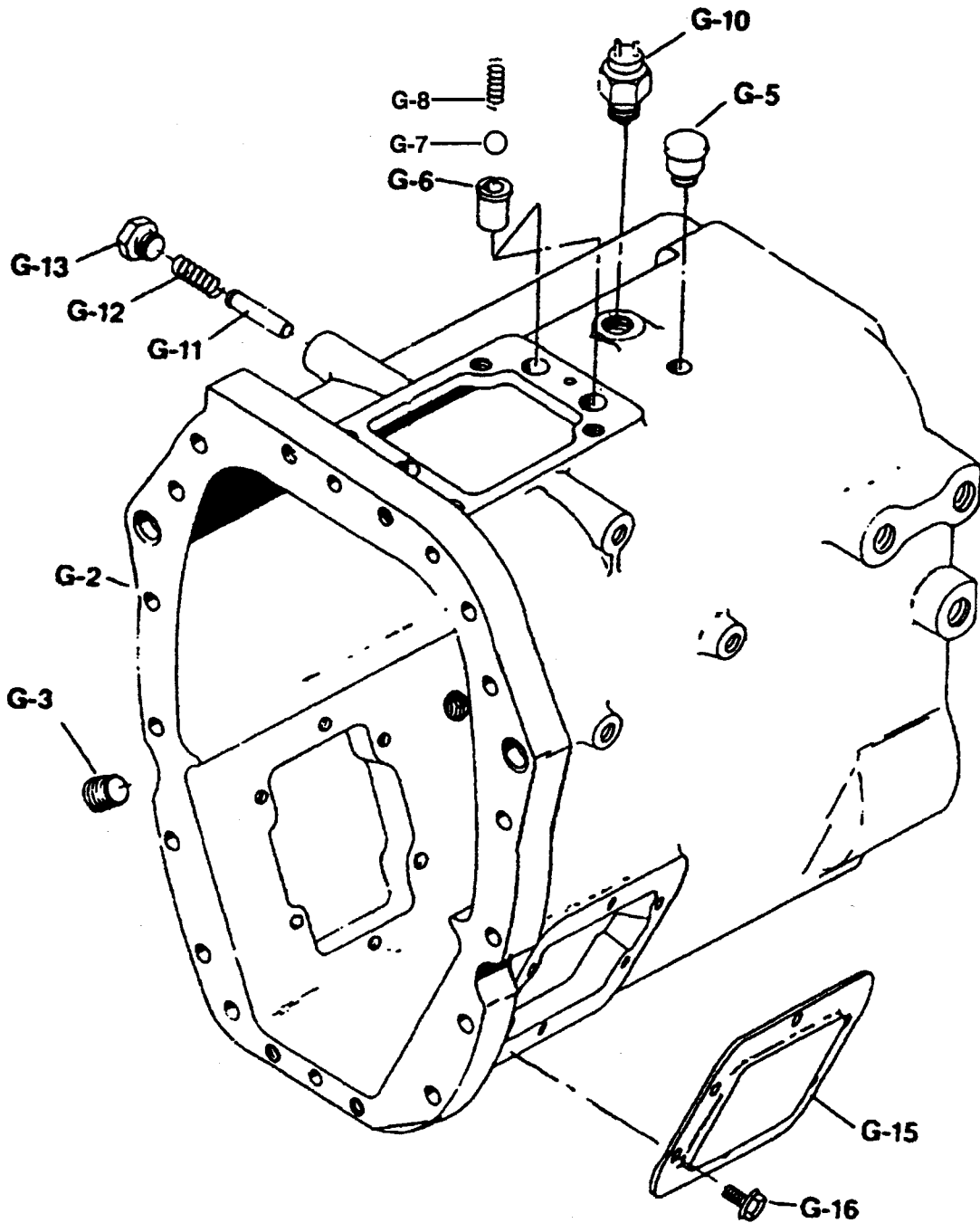
Ref. No.	Part No.	Description	Qty.
<b>Clutch Housing Group</b>			
	<b>101-518-7-2X</b>	Clutch Housing Assembly (includes E-1 thru E-5)	1
E-1	<b>N.S.S.</b>	Clutch Housing (C101-518-1)	1
E-2	<b>128C-20</b>	Bushing - Clutch Release Shaft	4
E-3	<b>46-96-2-1X</b>	Hand Hole Cover	1
E-4	<b>40-468-1</b>	Oil Trough	1
E-5	<b>545141</b>	Drive Pin	2
E-6	<b>330969-4</b>	Lift Hook	1
E-7	<b>545002-4</b>	Bolt - Clutch Housing (.375-16 x 1.125)	16
E-8	<b>545086</b>	Dowel Pin - Clutch Housing to Front Case	2
E-9	<b>101-477-5</b>	Support - Shift Bar - Front	1
E-10	<b>545002</b>	Screw - Shift Bar Support - Front	2
E-11	<b>545002-3</b>	Screw - Case to Clutch Housing	2
E-12	<b>500370-3</b>	Nut - Case to Clutch Housing	2
<b>Drive Gear Bearing Cap Group</b>			
F-1	<b>See Tab Bills</b>	Cap & Seal Assembly - Drive Gear (includes F-2 thru F-3)	1
	<b>101-19-2-1X</b>	Cap & Seal Assembly - (flat cap) (C101-19-1)	1
	<b>101-19-6-1X</b>	Cap & Seal Assembly - (stem cap) (C101-19-5)	1
F-2	<b>N.S.S.</b>	Cap - Drive Gear	1
F-3	<b>60-463-10-1X</b>	Oil Seal (includes installation sleeves)	1
F-4	<b>545002</b>	Screw - Drive Gear Bearing Cap (.375-16 x 1.00)	4
F-5	<b>101-411-1</b>	Bracket - Clutch Return Spring (Navistar only)	1

N.S.S. - Not Sold Separately

# MODEL ES56-5A CASE GROUP

T210-ES56-5A

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## EASY SHIFT 5 SPEED MODELS (560 lb-ft) CASE GROUP and RELATED PARTS

T210-ES56-5A

Ref. No.	Part No.	Description	Qty.
<b>Case Group</b>			
G-1	<b>See Tab Bills</b>	Case Assembly (includes G-1 thru G-6)	1
G-2	<b>N.S.S.</b>	Case (casting number C49-15-7)	1
N.S.	<b>NP-96</b>	Name Plate	1
N.S.	<b>NP-196</b>	Patent Plate	1
N.S.	<b>252-SP</b>	Pin - Name Plate	4
N.S.	<b>330934</b>	Magnet - Ceramic	2
N.S.	<b>330800</b>	Plug - Side Hole (3/8" - 16 x 3/4")	4
G-3	<b>545123</b>	Plug - Filler/Drain (3/4" - 14 N.P.I.F.)	2
G-5	<b>312268</b>	Breather	1
G-6	<b>101-487-1</b>	Insert - Poppet Spring & Plunger	2
G-7	<b>101-80-2</b>	Ball - Poppet	2
G-8	<b>101-72-10</b>	Spring - Poppet	2
G-10	<b>313538</b>	Switch - Back-Up Light (Navistar only)	1
or	<b>313539</b>	Switch - Back-Up Light (Ford)	1
N.S.	<b>40-263-1</b>	Sleeve - Back-Up Light (shipping)	1
G-11	<b>49-438-1</b>	Pin - 1st & Reverse Select Plunger	1
G-12	<b>30-72-6</b>	Spring - 1st & Reverse Shift Finger Plunger	1
G-13	<b>545128</b>	Plug- 1st & Reverse Plunger	1
G-15	<b>50-267-2</b>	Cover - PTO Aperture (6 bolt)	2
N.S.	<b>545056-6</b>	Anaerobic Sealant	A/R
G-16	<b>330800</b>	Screw - PTO Aperture Cover (.375-16 x .750)	12

N.S.S. - Not Sold Separately

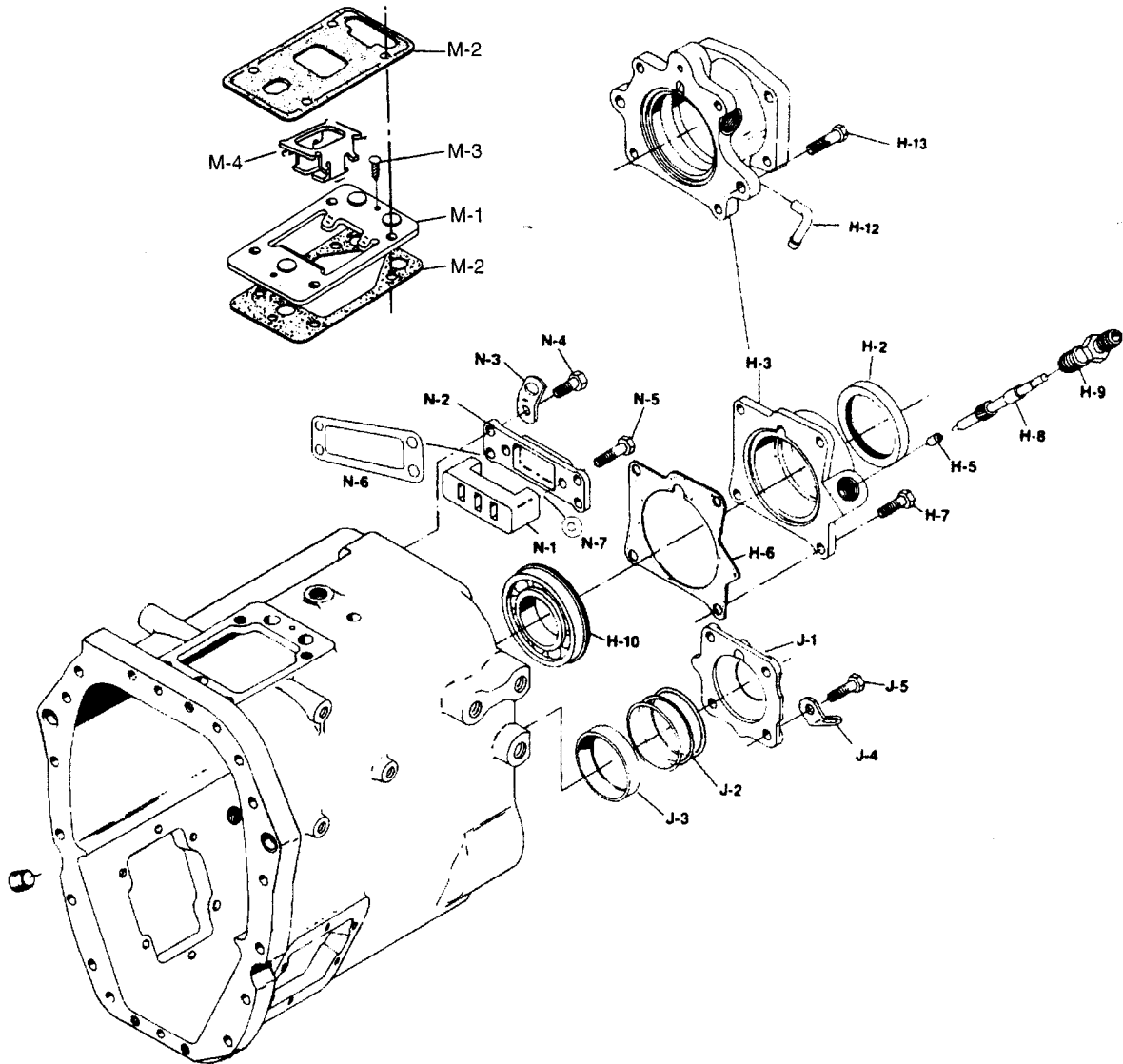
N.S. - Not Shown

A/R - As Required

# MODEL ES56-5A

## REAR BEARING CAP GROUP and RELATED PARTS

T210-ES56-5A



### MAINSHAFT REAR BEARING CAP TABLE

Part Number H-1	Part Number Includes				Type & Description	Used By
	Oil Seal H-2	Casting Number	Speedo Bush. H-5	Gasket H-6		
40-19-19-2X	63-463-1	C40-19-20	60-465-1	40-223-5	12x4 DOM, Mech. Speedo	Navistar
40-19-22-2X	63-463-1	C40-19-23	60-465-1	40-223-5	9x3/10x3 Bend. Mech. Speedo	All
40-19-38-2X	63-463-1	C40-19-46	60-465-1	40-223-4	Air Cap, Mech. Speedo	Ford & Std.
40-19-39-1X	63-463-1	C40-19-52	—	40-223-4	Air Cap, Elec/Mech Speedo	Nav. & GM
40-19-41-2X	63-463-1	C40-19-44	—	40-223-5	12x4 Elect. Speedo Only	Navistar
40-19-42-2X	63-463-1	C40-19-45	—	40-223-5	9x3 Elect. Speedo Only	Navistar
40-19-43-2X	63-463-1	C40-19-46	—	40-223-4	Air Cap, Elect. Speedo Only	Navistar
40-19-49-2X	63-463-1	C40-19-46	—	40-223-4	Air Cap, Elect. Speedo (Metric)	Volvo

# MODEL ES56-5A

## REAR BEARING CAP GROUP and RELATED PARTS

T210-ES56-5A

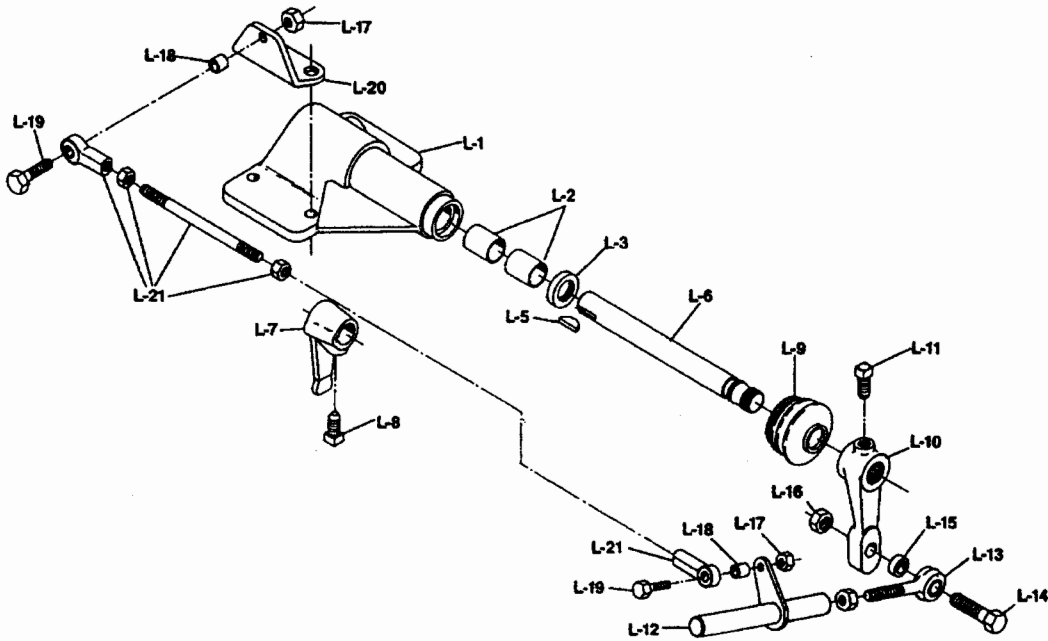
Ref. No.	Part No.	Description	Qty.
<b>Mainshaft Rear Bearing Cap Group</b>			
H-1	See Tab Bills	Cap Assembly - Mainshaft Bearing Rear	1
H-2	63-463-1	Oil Seal - Mainshaft Rear Bearing Cap	1
H-3	See Page 10	Cap Sub Assembly - Mainshaft Rear	1
H-4	N.S.S.	Cap - Mainshaft Rear Bearing	1
H-5	See Page 10	Bushing - Speedometer	1
H-6	40-223-4	Gasket - Mainshaft Rear Bearing Cap	1
or	40-223-5	Gasket - Mainshaft Rear Bearing Cap (brake only)	1
H-7	545002-4	Bolt - Rear Bearing Cap (.375-16 x 1.125)	4
H-8	See Tab Bills	Gear - Speedometer Drive	1
H-9	97-454-2-1X	Sleeve & Oil Seal	1
N.S.	44-539-1	Cap - Speedometer Dust	1
N.S.	55-334-1	Plug - Speedometer (used without driven gear)	1
N.S.	545106	Plug - Speedometer Outlet (electronic)	1
H-10	550989	Bearing - Mainshaft Rear	1
N.S.	545021	Plug - Electronic Speedometer (Ford)	1
H-12	37179	Tube - Vent (assembly to front of transmission)	1
H-13	545134	Bolt - Cap (D.C.M. brake)	2
or	545012	Plug - Case (rear holes)	2
<b>Countershaft Rear Bearing Cap Group</b>			
J-1	101-22-1	Cap - Countershaft Rear Bearing	1
J-2	49-228-1-1	Shim - Countershaft Rear Bearing (.0055/.0045)	1
or	49-228-1-2	Shim - Countershaft Rear Bearing (.0110/.0090)	1
or	49-228-1-3	Shim - Countershaft Rear Bearing (.0165/.0135)	1
J-3	550978	Cup - Countershaft Rear Bearing	1
J-4	330564-1	Lift Hook	1
J-5	545015	Bolt - Countershaft Rear Bearing Cap (.375-16 x 1.00)	4
<b>Interlock Group</b>			
M-1	101-200-7	Plate - Interlock Retainer	1
M-2	101-118-1	Gasket - Case to Interlock Plate (bottom)	1
and	101-118-2	Gasket - Case to Interlock Plate (top)	1
M-3	545091	Screw - Drive (interlock retainer)	2
M-4	101-12-1	Plate - Interlock	1
<b>Rear Shaft Bar Support Group</b>			
N-1	49-477-5X	Support - Rear Shift Bar	1
N-2	40-96-1	Cap - Rear Shift Bar	1
N-3	330564-1	Lift - Hook	1
N-4	545002	Screw - Shift Bar Cap (.375-16 x 1.00)	4
N-5	545002-9-3	Screw - Shift Bar Support (.375-16 x 2.250)	4
N-6	49-223-1	Gasket - Shift Bar Cover	1

N.S.S.- Not Sold Separately

N.S. - Not Shown

# MODEL ES56-5A REMOTE CONTROL ASSEMBLY

T210-ES56-5A



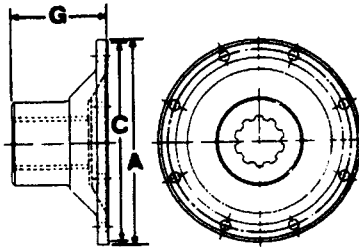
Ref. No.	Part No.	Description	40-18-1		
			-2X	-3X	-6X
	<b>See Tab Bills</b>	Remote Control Assembly	1	1	1
	<b>40-18-1-1X</b>	Remote Control Cover Assembly	1	1	1
L-1	<b>N.S.S.</b>	Remote Control Cover	1	1	1
L-2	<b>40-24-1</b>	Bushing - Remote Control Cover	2	2	2
L-3	<b>28P-19</b>	Seal - Remote Control Rod	1	1	1
N.S.	<b>40-65-1-1X</b>	Inner Shifter Shaft, Finger and Key	1	1	1
L-5	<b>500007-19</b>	Key - Shift Bracket	1	1	1
L-6	<b>40-65-1</b>	Shaft - Remote Control	1	1	1
L-7	<b>40-6-1</b>	Finger - Shift	1	1	1
L-8	<b>545063</b>	Set Screw - $\frac{7}{8}$ " - 20 x .72 Square Head	1	1	1
L-9	<b>97-483-3</b>	Boot - Shift Rod	1	1	1
N.S.	<b>LW-3-9</b>	Lockwire	2	2	2
L-10	<b>40-6-3</b>	Control Lever	1	-	1
or	<b>40-6-5</b>	Control Lever	-	1	-
L-11	<b>545136</b>	Set Screw - $\frac{7}{16}$ " - 14 x $\frac{7}{8}$ Square Head	1	1	1
L-12	<b>40-65-3-1X</b>	Shift Rod	1	1	-
L-13	<b>330938</b>	Rod End	1	1	-
L-14	<b>545001-2</b>	Bolt - Control Lever ( $\frac{1}{2}$ " - 13 x $\frac{1}{4}$ " hex head)	1	1	-
L-15	<b>40-38-2</b>	Spacer - Control Lever Bolt	1	1	-
L-16	<b>500370-5</b>	Nut - Control Lever and Rod End ( $\frac{1}{2}$ " - 13 hex)	1	1	-
L-17	<b>500370-3</b>	Nut - Tie Rod Assembly Mounting Bolt ( $\frac{3}{8}$ " - 16 hex)	2	2	-
L-18	<b>40-38-3</b>	Spacer - Tie Rod Assembly Mounting Bolt	2	2	-
L-19	<b>545002-5</b>	Bolt - Tie Rod Assembly ( $\frac{3}{8}$ " - 16 x 1.75 hex hed)	2	2	-
L-20	<b>40-354-3</b>	Bracket - Tie Rod	1	1	-
L-21	<b>40-65-2-1X</b>	Tie Rod Assembly	1	1	-
L-22	<b>500371-5</b>	Nut - Control Shift Rod	1	1	1

N.S.S. - Not Sold Separately  
N.S. - Not Shown

# MODEL ES56-5A

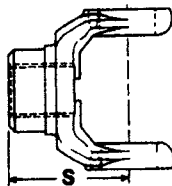
## COMPANION FLANGES and END YOKES

T210-ES56-5A

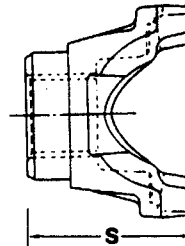


**COMPANION FLANGE**

Companion Flanges						
Joint Series	A Flange Diameter	Part No. Companion Flange Assembly	Part No. Companion Flange	G End of Hub to Flange Face Length	C Pilot Diameter F-Female M-Male	Brake Size
1480/1550	Rectangular	—	53-106-2	2 7/8"	F-3 3/4"	9 x 3 or 12 x 4



**FULL ROUND**



**U-BOLT—BRG. STRAP—HALF ROUND**

Series	Yoke Style	End Yoke Part Number	S End of Hub to Center Line Length	Joint Angle	Brake Size
1480	U-Bolt	3-4-8781	4 11/64"	22 1/2°	—
1480	Brg. Strap**	3-4-8931-2	3 29/32"	23 1/2°	—
1550	U-Bolt	4-4-4491	4 1/64"	21 1/2°	—
1550	Brg. Strap*	4-4-4491-1	4 1/64"	21 1/2°	—
1550	Brg. Strap**	4-4-4491-2	4 1/64"	21 1/2°	—
1550	U-Bolt	4-4-4601	6 27/64"	22°	12 x 4
1550	U-Bolt	4-4-4611	4 11/64"	22 1/2°	—
1550	Brg. Strap*	4-4-4611-1	4 11/64"	22 1/2°	—
1550	Brg. Strap**	4-4-4611-2	4 11/64"	22 1/2°	—
1550	Half Rnd.	(A) 4-4-6111-1X	7 1/32"	22°	12 x 4
1610	Full Rnd.	5-4-6321	4"	19°	—
1610	Half Rnd.	5-4-6321-1	4"	19°	—
1610	Full Rnd.	5-4-6481	4 11/64"	22 1/2°	—
1610	Half Rnd.	5-4-6481-1	4 11/64"	22 1/2°	—
1610	Full Rnd.	5-4-6491	6 21/32"	22°	12 x 4
1610	Half Rnd.	(A) 5-4-7611-1X	7 9/16"	22°	12 x 4
1710	Full Rnd.	6-4-7301	5 1/4"	33 1/2°	—
1710	Half Rnd.	6-4-7301-1	5 1/4"	33 1/2°	—

(A) Assembly Includes Brake Drum

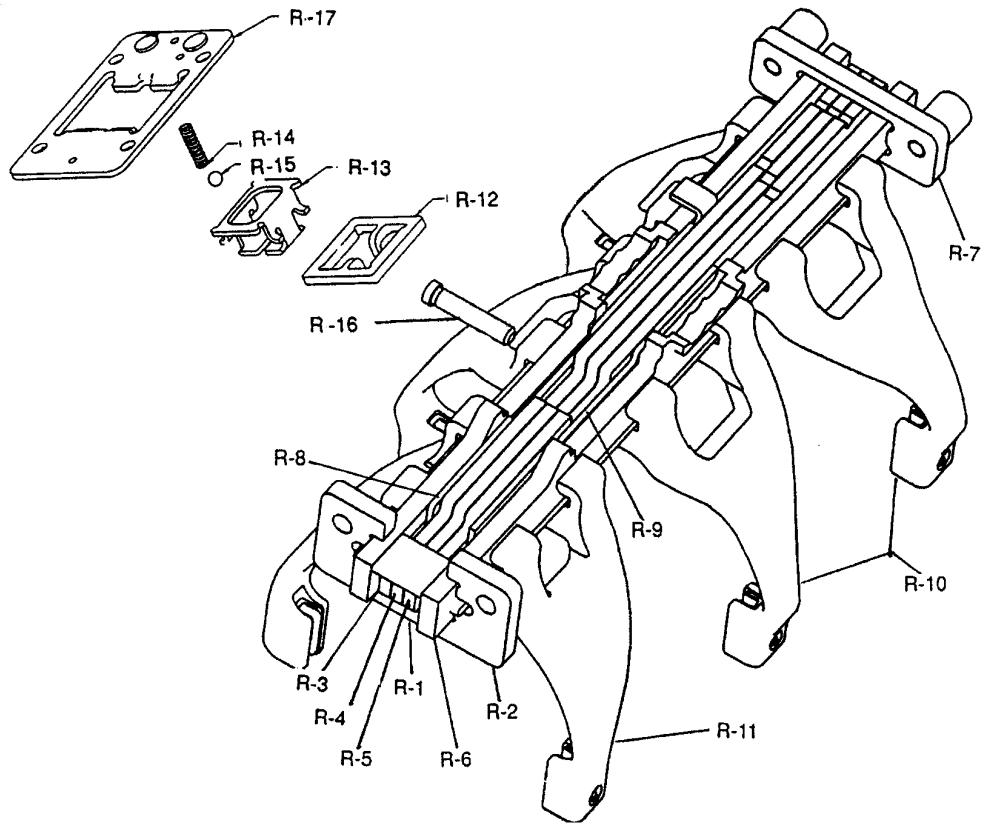
\*With Tapped Holes

\*\*With Thru Holes



# EASY SHIFT 5 SPEED MODELS (560 lb-ft) SHIFT BAR and FORK ASSEMBLY

T210-ES56-5A



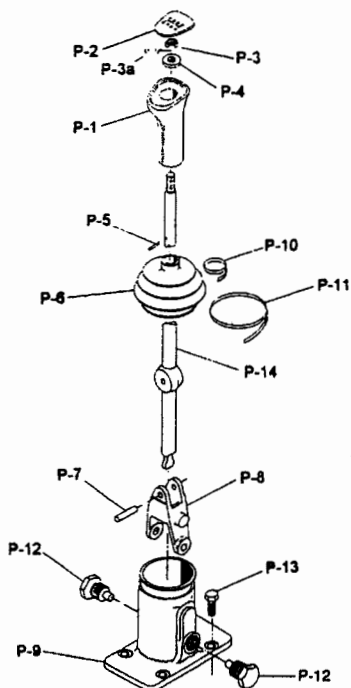
Ref. No.	Part No.	Description	Qty.
	<b>56-69-1-1X</b>	Sub Assy. Opti-Rail Shift System (includes R-1 thru R-12)	1
R-1	<b>56-69-1X</b>	Sub Assy. - Rail Channel (includes R-2 thru R-9)	1
R-2	<b>101-477-5</b>	Support - Front Shift Bar	1
R-3	<b>NSS</b>	Rail - Shift 1st/Rev.	1
R-4	<b>NSS</b>	Rail - Shift 2nd/3rd	1
R-5	<b>NSS</b>	Rail - Shift 4th/5th	1
R-6	<b>NSS</b>	Channel	1
R-7	<b>49-477-5X</b>	Sub Assy. - Rear Shift Bar Support	1
R-8	<b>NSS</b>	Spacer - Shift Rail	1
R-9	<b>NSS</b>	Spacer - Shift Rail	1
R-10	<b>101-66-27X</b>	Sub Assy. - Shift Fork 1st/Rev 2nd/3rd & Clips	2
R-11	<b>101-66-28X</b>	Sub Assy. - Shift Fork 4th/5th & Clips	1
R-12	<b>101-999-21</b>	Cross Slide - Shift Rail	1
N.S.	<b>56-429-1X</b>	Kit - Small Parts ES56-5 Opti-Rail (includes A-13 thru R-16)	1
R-13	<b>101-12-1</b>	Interlock Plate	1
N.S.	<b>101-487-1</b>	Insert - Poppet Spring and Ball	2
R-14	<b>101-72-10</b>	Spring- Poppet	2
R-15	<b>101-80-2</b>	Ball-Poppet	2
R-16	<b>49-438-1</b>	Pin - Side Detent	1
R-17	<b>101-200-7</b>	Plate - Interlock Retainer	1

N.S. - Not Shown

N.S.S. - Not Sold Separately

# MODEL ES56-5A SHIFT LEVER and DOME ASSEMBLY

T210-ES56-5A



Ref. No.	Part No.	Description	101-17-2	
			-28X	-29X
	<b>313768-2X</b>	<b>Sub-Assembly - Shift Knob (includes P-1 thru P-5)</b>	1	1
P-1	<b>39Q-35</b>	Handle - Shift Lever	1	1
P-2	<b>49-20-1</b>	Insert - Shift Lever Handle (ES43-5 & ES53-5)	1	1
P-2	<b>101-20-9</b>	Insert - Shift Lever Handle (ES52-7 & ES066-7B)	1	1
P-3	<b>500370-5</b>	Nut - Shift Knob Retaining	1	1
P-3a	<b>500357-13</b>	Washer - Shift Lever Retaining (lock type)	1	1
P-4	<b>204-W</b>	Washer - Shift Knob	1	1
P-5	<b>201-438-8</b>	Pin - Shift Knob	1	1
N.S.	<b>101-17-2-10X</b>	<b>Sub Assembly - Shift Tower (includes P-6 thru P-13)</b>	1	1
P-6	<b>101-483-2</b>	Boot - Shift Tower and Lever	1	1
P-7	<b>53Q-20</b>	Pin - Pivot (Gimbal)	1	1
P-8	<b>48Q-60</b>	Yoke - Shift (Gimbal)	1	1
P-9	<b>101-17-2</b>	Tower - Shift (Gimbal)	1	1
P-10	<b>33Q-15-1</b>	Tie Cable - Upper	1	1
P-11	<b>33Q-15-2</b>	Tie Cable - Lower	1	1
P-12	<b>313591X</b>	Kit - Trunion Screws (includes (2) Trunion screws)	1	1
P-13	<b>545028</b>	Screw - Shift Tower	4	4
P-14	<b>25Q-2594-10</b>	Shift Lever (26.400" long) Straight	1	-
	<b>25Q-2594-11</b>	Shift Lever (30.712" long) Straight	-	1
	<b>2851</b>	<b>Bulletin — Installation Shift Knob</b>	1	1
		<b>Parts Not Included In Tower Assemblies</b>		
N.S.	<b>201-483-4</b>	Boot - Floorboard (oval)		
N.S.	<b>201-483-5</b>	Boot - Floorboard (rectangular)		
N.S.	<b>101-483-13</b>	Boot - Internal (UPS)	1	1

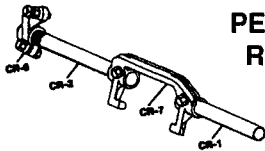
N.S. - Not Shown

N.S.S. - Not Sold Separately

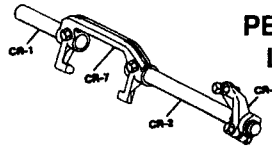
# MODEL ES56-5A

## CLUTCH RELEASE CODE TABLE

**T210-ES56-5A**



**PEDAL ADJUSTING ARM  
RIGHT SIDE—310473X**



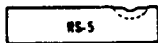
**PEDAL ADJUSTING ARM  
LEFT SIDE—310233X**

**CR-1 SHORT SHAFT**

Part No.	Length
106C-1142	6.125"
106C-1185	5.750"
106C-1216	4.750"
106C-1278	4.812"
106C-1360	5.312"
106C-1375	6.781"
106C-1498	6.500"
330601-1	6.250"

**CR-1 LONG SHAFT (Cont'd)**

Part No.	Type	Length
106C-1083	RS-8	7.969"
106C-1094	RS-8	8.469"
106C-1123	RS-8	12.968"
106C-1315	RS-8	7.625"
106C-1367	RS-8	10.312"
106C-1375	RS-8	6.781"
106C-1417	RS-8	7.250"
106C-1422	RS-8	7.500"
106C-1490	RS-8	16.000"
106C-1515	RS-5	11.375"
106C-1529	RS-5	8.312"
330610-5	RS-8	9.469"
330610-11	RS-8	10.750"
46-510-9	RS-5	7.125"
330610-10	RS-8	9.500"



**CR-2 LONG SHAFT**

Part No.	Type	Length
106C-438	RS-5	14.000"
106C-617	RS-8	10.469"
106C-839	RS-8	11.469"
106C-939	RS-8	10.000"
106C-953	RS-8	9.750"
106C-959	RS-8	11.968"
106C-960	RS-8	8.719"
106C-1046	RS-8	8.968"
106C-1047	RS-8	9.469"

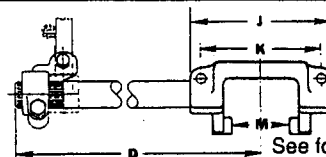
**CR-6 PEDAL ADJ. ARM**

310233X	For Left Side Mtg.
310473X	For Right Side Mtg.
47-526-1-1X*	Lever Type 7 1/4"
310873X*	Lever Type 7 1/4"

\*Lever type can be used on either right or left side.

**THRU SHAFT (used with push type clutch)**

Part No.	Type	Length
106C-1566	Splined	19.125"
106C-1578	Splined	19.500"
49-510-1	Keyed	19.120"
97-510-2	Splined	19.313"



See following page for "D" dimensions.

**CLUTCH RELEASE YOKES**

CR-7	Forging No.	Used With	Type	J	K	M
105C-64	F105C64	Spicer 15 1/2" SP	Pull	8.000"	6.500"	4.895"
105C-68	F105C99	Spicer 14" SP	Pull	7.125"	5.750"	4.132"
105C-117 <sup>1</sup>	F105C118	Spicer & Others	Push	8.375"	7.000"	4.885"
105C-124 <sup>2</sup>	F105C125	Spicer AL & AR	Push	3.750"	2.125"	2.885"
105C-132 <sup>2</sup>	F105C118	Spicer & Others	Push	8.375"	7.000"	4.885"
105C-137	F105C138	Spicer 13" and 14" 2P	Pull	8.000"	6.500"	4.895"
85-509-3 <sup>3</sup>	F105C118	Spicer & Others	Push	8.375"	7.000"	4.885"

<sup>1</sup>Machined washer surface on yoke front

<sup>2</sup>Machined washer surface on yoke rear (for clearance)

<sup>3</sup>Same as <sup>1</sup> above except contains spring holes in lugs

■ Use 7743X Clutch Release Bearing and (2) 230C-12 Springs

**★ CLUTCH RELEASE YOKE ATTACHING PARTS—**

Use one KEY 10-30, two SCREWS 330231 and two LOCK WASHERS 500356-12

NOTE: When changing from a two plate to single plate clutch or vice versa, a different bearing cap will be required.

# MODEL ES56-5A CLUTCH RELEASE CODE TABLE

**T210-ES56-5A**

Rel.Code See Tab Bill	CR-7 Yoke*	Shaft		Adjustable Arm	D Dim. (In.)	Rel. Code See Tab Bill	CR-7 Yoke*	Shaft		Adjustable Arm	D Dim. (In.)
		CR-1 Short	CR-2 Long					CR-1 Short	CR-2 Long		
1	105C-64	106C-1142	106C-1047	310233X	11.969	61	105C-137	106C-1185	106C-839	310233X	13.969
2	105C-64	106C-1185	106C438	—	16.500	62	105C-137	106C-1185	106C-939	310233X	12.500
3	105C-64	106C-1185	106C-939	310233X	12.500	63	105C-137	106C-1185	106C-939	310473X	12.500
4	105C-64	106C-1185	106C-1046	310233X	11.468	64	105C-137	106C-1185	106C-953	310473X	12.250
5	105C-64	106C-1185	106C-1047	310233X	11.969	65	105C-137	106C-1185	106C-1046	310233X	11.468
6	105C-64	106C-1185	106C-1047	47-526-1-1X	11.969	66	105C-137	106C-1185	106C-1046	310473X	11.468
7	105C-64	106C-1544	106C-839	310233X	13.969	67	105C-137	106C-1185	106C-1047	310233X	11.969
8	105C-68	106C-1142	106C-438	—	16.125	68	105C-137	106C-1185	106C-1083	310233X	10.469
9	105C-68	106C-1142	106C-617	—	12.594	69	105C-137	106C-1185	106C-1094	—	10.969
10	105C-68	106C-1142	106C-617	310233X	12.594	70	105C-137	106C-1185	106C-1094	310233X	10.969
11	105C-68	106C-1142	106C-839	310233X	13.594	71	105C-137	106C-1185	106C-1123	—	15.468
12	105C-68	106C-1142	106C-939	310233X	12.125	72	105C-137	106C-1185	106C-1123	310233X	15.468
13	105C-68	106C-1142	106C-1046	310233X	11.093	73	105C-137	106C-1185	106C-1367	—	12.812
14	105C-68	106C-1142	106C-1047	310233X	11.594	74	105C-137	106C-1185	106C-1367	310233X	12.812
15	105C-68	106C-1278	106C-438	—	16.125	75	105C-137	106C-1185	106C-1375	310873X	9.281
15A	105C-68	106C-1278	106C-939	310473X	12.125	76	105C-137	106C-1185	106C-1515	—	13.875
15B	105C-68	106C-1278	106C-939	310233X	12.125	77	105C-137	106C-1185	106C-1529	—	10.812
18	105C-117	106C-1142	106C-939	310233X	12.750	78	105C-137	106C-1185	330610-5	—	11.969
19	105C-117	106C-1185	106C-438	—	16.750	78A	105C-137	106C-1185	46-510-9	—	9.625
20	105C-117	106C-1185	106C-617	310233X	13.219	79	105C-137	106C-1216	106C-617	310233X	12.969
21	105C-117	106C-1185	106C-839	47-526-1-1X	14.219	80	105C-137	106C-1278	106C-438	—	16.500
22	105C-117	106C-1185	106C-939	310233X	12.750	83	105C-137	106C-1278	106C-617	310233X	12.969
23	105C-117	106C-1185	106C-953	310873X	12.500	84	105C-137	106C-1278	106C-939	310233X	12.500
24	105C-117	106C-1185	106C-960	310233X	11.469	84A	105C-137	106C-1278	106C-939	310473X	12.500
25	105C-117	106C-1185	106C-1046	310233X	11.718	85	105C-137	106C-1278	106C-939	310873X	12.500
26	105C-117	106C-1185	106C-1047	310233X	12.219	86	105C-137	106C-1278	106C-960	310233X	11.219
27	105C-117	106C-1185	106C-1083	—	10.719	87	105C-137	106C-1278	106C-1046	—	11.468
28	105C-117	106C-1185	106C-1083	310233X	10.719	88	105C-137	106C-1278	106C-1046	310233X	11.468
29	105C-117	106C-1185	106C-1083	310473X	10.719	89	105C-137	106C-1278	106C-1047	—	11.969
30	105C-117	106C-1185	106C-1094	310233X	11.219	90	105C-137	106C-1278	106C-1047	310233X	11.969
31	105C-117	106C-1185	106C-1094	310873X	11.219	91	105C-137	106C-1278	106C-1083	310233X	10.469
32	105C-117	106C-1185	106C-1169	310233X	11.875	91A	105C-137	106C-1278	106C-1083	310473X	10.469
33	105C-117	106C-1185	106C-1315	—	10.375	92	105C-137	106C-1278	106C-1094	310233X	10.969
34	105C-117	106C-1185	106C-1315	310233X	10.375	92A	105C-137	106C-1278	106C-1315	310233X	10.125
35	105C-117	106C-1185	106C-1315	47-526-1-1X	10.375	93	105C-137	106C-1278	106C-1375	310233X	9.281
35A	105C-117	106C-1185	106C-1375	310873X	9.531	94	105C-137	106C-1278	106C-1422	310233X	10.000
36	105C-117	106C-1185	106C-1417	310233X	10.000	95	105C-137	106C-1278	106C-1529	—	10.812
37	105C-117	106C-1185	106C-1417	310873X	10.000	96	105C-137	106C-1360	106C-1083	—	10.469
38	105C-117	106C-1185	106C-1490	310233X	18.750	96A	105C-137	106C-1360	106C-1417	310233X	9.750
39	105C-117	106C-1278	106C-939	310233X	12.750	97	105C-137	106C-1360	106C-1422	310233X	10.000
40	105C-117	106C-1278	106C-960	310873X	11.469	98	105C-137	106C-1375	106C-438	310233X	16.500
41	105C-117	106C-1278	106C-1047	310233X	12.219	99	105C-137	106C-1498	106C-438	—	16.500
42	105C-117	106C-1278	106C-1094	310233X	11.219	100	105C-137	106C-1498	106C-617	310233X	12.969
43	105C-117	106C-1278	106C-1315	310233X	10.375	101	105C-137	106C-1498	106C-617	310473X	12.969
44	105C-117	106C-1278	106C-1367	310233X	13.062	102	105C-137	106C-1498	106C-939	310233X	12.500
45	105C-117	106C-1360	106C-1083	310233X	10.719	103	105C-137	106C-1498	106C-939	310473X	12.500
46	105C-117	106C-1360	106C-1315	310233X	10.375	104	105C-137	106C-1498	106C-953	310233X	12.250
46A	105C-117	106C-1360	330610-10	—	12.250	105	105C-137	106C-1498	106C-959	310233X	14.468
49	105C-124	106C-1185	106C-438	—	14.313	106	105C-137	106C-1498	106C-1046	310233X	11.468
50	105C-124	Thru Shaft	106C-1566	310233X	—	107	105C-137	106C-1498	106C-1047	—	11.969
51	105C-124	Thru Shaft	106C-1566	310473X	—	108	105C-137	106C-1498	106C-1047	310233X	11.969
52	105C-124	Thru Shaft	106C-1566	310873X	—	109	105C-137	106C-1498	106C-1083	310233X	10.469
52A	105C-124	Thru Shaft	49-510-1	310233X	—	110	105C-137	106C-1498	106C-1094	—	10.969
53	105C-132	106C-1185	106C-1047	310233X	9.782	112	105C-137	330601-1	106C-939	310233X	12.500
54	105C-132	106C-1185	106C-1083	310233X	8.282	112A	85-509-3	106C-1278	106C-939	310233X	12.750
55	105C-132	106C-1185	106C-1417	310873X	7.563	113	85-509-3	106C-1360	106C-1417	310233X	10.000
56	105C-132	106C-1185	49-510-9	—	7.438	114	85-509-3	Thru Shaft	106C-1578	310233X	—
57	105C-132	106C-1278	46-510-9	—	7.438	114A	85-509-3	Thru Shaft	106C-1578	310473X	—
59	105C-137	106C-1185	106C-438	—	16.500	115	85-509-3	Thru Shaft	106C-1578	310873X	—
60	105C-137	106C-1185	106C-617	310233X	12.969	116	312916	Thru Shaft	97-510-2	—	—

■ Use 7743X Clutch Release Bearing and (2) 230C-12 Springs

# MODEL ES56-5A OVERHAUL KITS

T210-ES56-5A

Part No.	Description	Qty.
	<b>Major Overhaul Kit</b>	
56-400-1X	Major Overhaul Kit	1
501200	Nut - Mainshaft Output	1
53-205-1	Washer - Mainshaft Nut	1
313401-34X	Thrust Washer Kit	1
56-429-1X	Shifter Housing Small Parts Kit	1
56-432-1X	Minor Overhaul Kit	1
	<b>Minor Overhaul Kit (included in major overhaul kit)</b>	
56-432-1X	Minor Overhaul Kit	1
	<b>Bearings</b>	
56-482-1	Mainshaft Pocket	1
550989	Mainshaft Rear Cone	1
101-482-1	Drive Gear Front	1
550963	Mainshaft 2nd & Reverse	2
550886	Reverse Idler Gear	2
550989	Mainshaft Rear	1
550868	Countershaft Rear & Front - Cone	2
550978	Countershaft Rear & Front - Cup	2
550968	Mainshaft 3rd Needle	1
550991	Mainshaft 1st Speed	1
550990	Mainshaft 4th Speed	1
101-486-1	Clip - Shift Fork	6
60-463-10-1X	Seal - Drive Gear	1
63-463-1	Seal - Mainshaft Rear	1
545077	#2 Moly Grease (packet)	1
545080-1	Loctite - Threadlock Adhesive (vial)	1
312475-47X	Gasket Kit	1
313438-3X	Shim Kit - Countershaft Rear	1
56-381-2X	Snap Ring - Kit	1
	Service Manual	1
2770	Bulletin - Bearing Lube Instruction	1
2783	Bulletin - Loctite Application for Mainshaft Nut	1
	<b>Thrust Washer Kit (included in major overhaul kit)</b>	
313401-34X	Thrust Washer Kit	1
49-47-2	Mainshaft - 3rd & 4th Speed	1
49-47-1	Mainshaft - 1st & 2nd Speed	1
101-47-4	Mainshaft - Reverse	1
545087	Pin - Lock	2
	<b>Shifter Housing Small Parts (included in major overhaul kit)</b>	
56-429-1X	Shifter Housing Small Parts Kit	1
101-80-2	Ball - Poppet	2
101-487-1	Insert - Poppet Spring and Ball	2
49-438-1	Pin - 1st and Reverse Select Plunger	1
101-72-10	Spring - Shift Bar Poppet	2
30-72-6	Spring - 1st & Reverse Shift Finger Plunger	1

# MODEL ES56-5A OVERHAUL KITS

T210-ES56-5A

Part No.	Description	Qty.
<b>312475-47X</b>	<b>Gasket Kit (included in minor overhaul kit)</b>	<b>1</b>
<b>40-223-4</b>	Mainshaft Rear Bearing Cap	1
<b>40-223-5</b>	Mainshaft Rear Bearing Cap (D.C.M. brake)	1
<b>101-118-1</b>	Tower	1
<b>101-118-2</b>	Tower	1
<b>545056-10</b>	Anaerobic Sealant	1
<b>49-223-1</b>	Gasket - Shift Bar Cover	1
<b>2792</b>	Bulletin - Liquid Gasket	1
<b>56-381-2X</b>	<b>Snap Ring Kit (included in minor overhaul kit)</b>	<b>1</b>
<b>40-381-3</b>	Mainshaft 3rd & 4th Thrust Washer	1
<b>56-381-1</b>	Countershaft Head End Gear	1
<b>40-381-4</b>	Mainshaft 2nd & 3rd Clutch Gear	1
<b>49-381-1</b>	Mainshaft 1st & 2nd Speed Thrust Washer	1
<b>82-381-2</b>	Mainshaft Front Bearing	1
<b>40-381-1</b>	4th & 5th Gear	1
<b>313438-3X</b>	<b>Shim Kit (included in minor overhaul kit)</b>	<b>1</b>
<b>49-228-1-3</b>	Countershaft Rear Bearing Cap (.0165/.0135)	1
<b>49-228-1-2</b>	Countershaft Rear Bearing Cap (.0110/.0090)	1
<b>49-228-1-1</b>	Countershaft Rear Bearing Cap (.055/.0045)	1
<b>2793</b>	Bulletin - Countershaft Shim Kit	1
	<b>Breakdown of Oil Seals in the Minor Overhaul Kit</b>	
<b>60-463-10-1X</b>	<b>Sub Assembly - Oil Seal &amp; Installation Sleeve</b>	<b>1</b>
<b>60-463-10</b>	Seal - Drive Gear Bearing Cap	1
<b>40-204-1</b>	Sleeve - Oil Seal Installation (1.75 diameter shaft)	1
<b>40-204-2</b>	Sleeve - Oil Seal Installation (1.50 diameter shaft)	1
<b>2821</b>	Bulletin - Oil Seal Installation Instruction	1
<b>40-204-3</b>	Sleeve - Oil Seal Installation (1.375 diameter shaft)	1

**THE ANAEROBIC SEALANT SHOULD BE APPLIED AS FOLLOWS:**

Approx. (4)cc for C/S Bearing Caps  
 Approx. (4)cc for Rear Shift Bar Support  
 Approx. (6)cc for Drive Gear Bearing Cap

A 50cc tube is supplied in the Minor Overhaul Kit

# MODEL ES56-5A

## TABULATED BILLS OF MATERIAL

**T210-ES56-5A**

Tab No.	Used By	For Use With Clutch	CLUTCH HOUSING			Main Drive Gear	Drive Gear Bearing Cap F-1	Case Assembly G-1
			S A E	Assembly No. E-1	Rel. Code Pages			
<b>Model ES56-5A</b>								
<b>301734</b>								
-1	General	Pull Type	2	101-518-7-1X	—	56-35-3-1X	101-19-2-1X	49-15-6-1X
-2	Navistar	Pull Type	2	101-518-7-1X	—	56-35-4-1X	101-19-2-1X	49-15-6-1X
-3	Navistar	Pull Type	2	101-518-7-1X	—	56-35-4-1X	101-19-2-1X	49-15-6-1X
-4	Navistar	Pull Type	2	101-518-7-1X	—	56-35-6-1X	101-19-6-1X	49-15-6-1X
-5	Navistar	Pull Type	2	101-518-7-1X	—	56-35-6-1X	101-19-6-1X	49-15-6-1X
-6	Navistar	Pull Type	2	101-518-7-1X	—	56-35-4-1X	101-19-2-1X	49-15-6-1X
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-26	Navistar	Pull Type	2	101-518-7-1X	—	56-35-4-1X	101-19-2-1X	49-15-6-1X
-27	Navistar	Push Type	2	101-518-7-1X	—	56-35-6-1X	101-19-6-1X	49-15-6-1X
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# MODEL ES56-5A

## TABULATED BILLS OF MATERIAL

T210-ES56-5A

Tab No.	Mainshaft Rear Brg. Cap Assembly H-1	Speedometer		End Yoke or Companion Flange	Shifter		
		Drive Gear or Signal Gear B-24	Driven Gear H-7		Housing Assembly	Lever & Dome Assembly Pages	Remote Control Pages
<b>Model ES56-5A</b>							
<b>301734</b>							
-1	40-19-41-2X	53-452-5	—	—	—	—	—
-2	40-19-43-2X	53-452-5	—	—	—	—	—
-3	40-19-41-2X	53-452-5	—	—	—	—	—
-4	40-19-41-2X	53-452-5	—	—	—	—	—
-5	40-19-43-2X	53-452-5	—	—	—	—	—
-6	40-19-43-2X	53-452-5	—	6-4-7301-1	—	101-17-2-75X	—
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-26	201-37-7	53-452-5	—	—	—	—	—
-27	201-37-7	53-452-5	—	—	—	—	—
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