

Roadranger®

Eaton® Fuller® Mid-Range Transmissions

FS-6105 Series
FS-6005 Series



One Great Drivetrain from Two Great Companies

Illustrated Parts List TRIP-0140 May 1990



For the most current information, visit the Roadranger web site at www.roadranger.com

HOW TO USE THE ILLUSTRATED PARTS LIST

All Lists are arranged the same; available kits, assemblies, drivers' instructions, and technical service literature are listed in the front. Cases, clutch housings, bar housings, mainshafts, countershafts, drive gears and idler follow in order.

Use of Kits and Assembly Listing (Page 2)

The first column shows on which page kit or assembly is found.

The second column shows Kit References used to identify components of kits on that page.

If you do not have kit or assembly in stock, kit references will allow you to either put kit or assembly together from individual parts in your stock or find an individual part you may need that is in your inventory as part of a kit or assembly.

The third and fourth columns show part number and description.

Page	Kit Ref.	Part #	Description
9	Y ³	3316210	Yoke Assembly 4th-5th

Illustrated Index

Pages 4 and 5 are an Illustrated Index for this Illustrated Parts List. The isometric drawing is a typical Eaton single counter-shaft transmission. The proper page on which to find these items is noted.

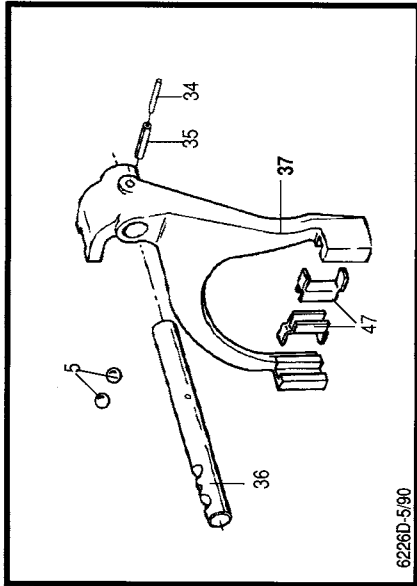
Notes On Illustrations

Illustrations show parts in assembly groups.

- Various notes are used where appropriate.
- Current production
 - Not used in current production
 - Use of lockwire
 - Transmission model information

How to Identify Parts and Obtain Part Numbers.

Example: Yoke 4th-5th



Determine item number of Yoke Assembly 4th-5th

Example: Item Number is 37

ITEM	QTY. USED	PART NO.	DESCRIPTION	KIT REFERENCE
34	4	1JM6028	Lock pin	
35	4	1JM3528	Lock pin	
37	1	3316211	Yoke assembly 4th-5th	Y ³
			order assembly: 3316210	
36	1	3315763	Yoke bar 4th-5th	
			replaced by 23299	
	or 1	23299	Yoke bar 4th-5th	Y ¹⁻²³
47	6	227695	Pad	S ²
5	13	10J14	Ball	

Purposes of Kit Reference

- A. To denote the parts included in a kit or an assembly,
- B. Used for notes.

Kit and Assembly Identification for Service Parts

- A — Denotes Production Assemblies
- K — Denotes Service Kit (Unassembled)
- S — Denotes Service Assembly

Use of Kit Reference

Items 37 has reference Y³. Item 47 has reference Y¹⁻²³. Assembly 3316210 has reference Y³. This shows that items 37 and 47 are components of assembly 3316210.

ITEM	QTY. USED	PART NO.	DESCRIPTION	KIT REFERENCE
34	4	1JM6028	Lock pin	
35	4	1JM3528	Lock pin	
37	1	3316211	Yoke assembly 4th-5th	Y ³
			order assembly: 3316210	
36	1	3315763	Yoke bar 4th-5th	
			replaced by 23299	
	or 1	23299	Yoke bar 4th-5th	Y ¹⁻²³
47	6	227695	Pad	S ²
5	13	10J14	Ball	

PART NO.	KIT NAME	KIT REFERENCE
3316207	Yoke Assembly 2nd-3rd	Y ¹
A-5595	Yoke Assembly Rev.	Y ²
3316210	Yoke Assembly 4th-5th	Y ³
K-2012	Small parts kit	S ²

2 THIS BOOKLET IS DESIGNED TO IDENTIFY ALL PARTS IN THE FS-6005 AND FS-6105 SERIES TRANSMISSIONS.

Service Kits and Assemblies available for the FS-6105 Series

<i>Page</i>	<i>Kit Ref.</i>	<i>Part #</i>	<i>Description</i>
—	—	K-2181	Gasket kit
11	S ¹	K-2183	Shim kit
9,11,13	S ²	K-2012	Small parts kit
15	S ³	K-2257	Synchronizer kit
15	S ⁴	K-2017	Synchronizer kit
11	S ⁵	S1702	Shift bar housing Assembly
13	Y ¹	3316207	Yoke Assembly 2nd-3rd
13	Y ²	A-5595	Yoke Assembly Rev.
13	Y ³	3316210	Yoke Assembly 4th-5th

Basic Rebuild

Part #	Description	Kit Ref.
K-2131	Basic Rebuild Kit	RK

Above kit also include gaskets

Sealants and Lubricants

Part #	Description
71203	Silicone Lubricant 8 oz. size (236.59 cc)-(fleet size)
71204	Adhesive Sealant 0.5 cc size (single application size)
71205	Sealant 2 cc size (single application size)
71206	Silicone Lubricant 4 cc size (single application size)
71231	Gasket Sealant 8 milliliter tube (single application size)
71232	Liquid Thread Adhesive 10 milliliter bottle (single application size)

Operating Labels and Instructions

Part #	Description
21789	Shift label

Maintenance and Repair

Part #	Description
FS-6105	Series Service Manual - Form Number 196

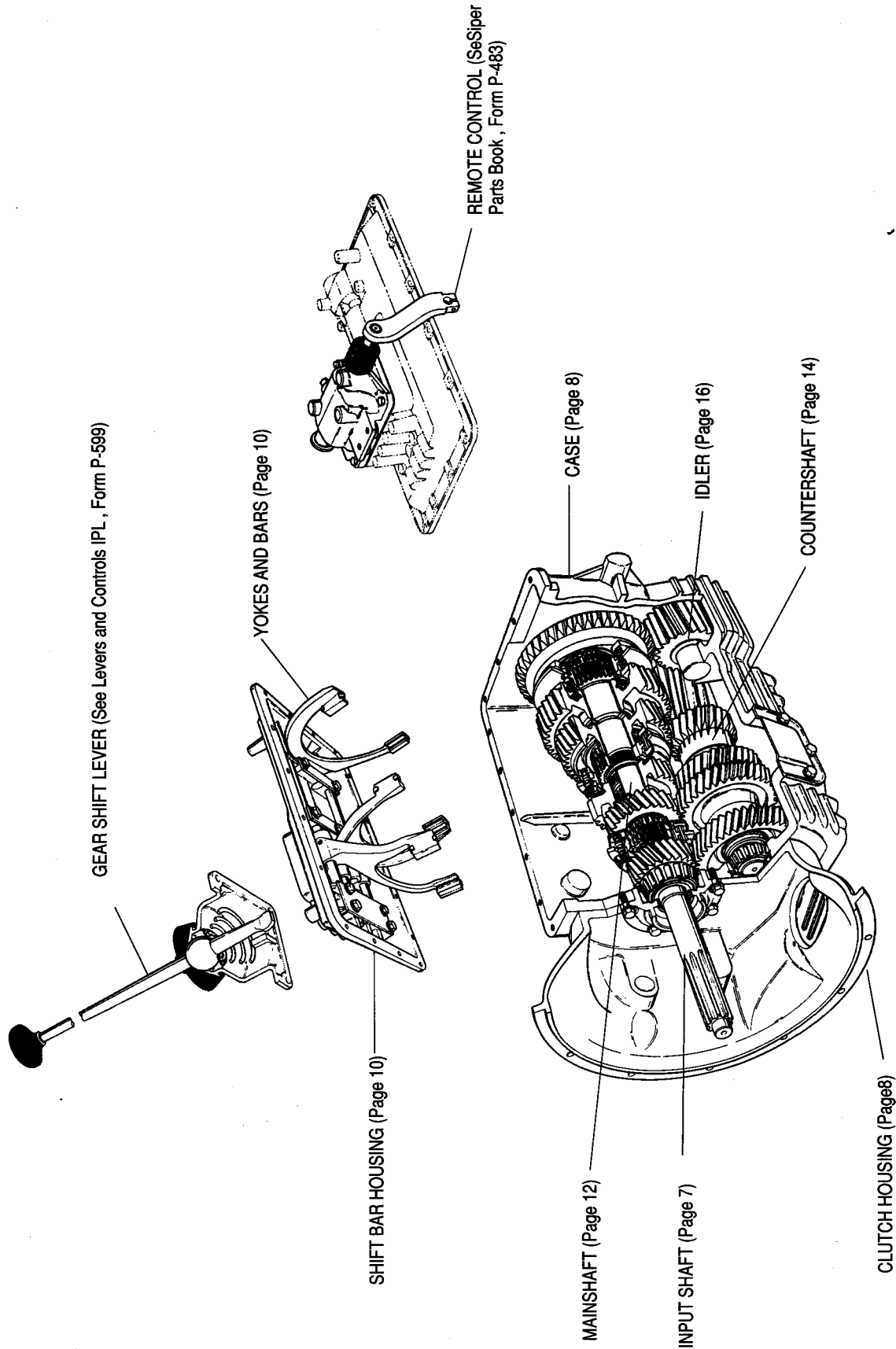
Miscellaneous

For Lever / Control information please see Illustrated Parts List form P-599.
For information on the following options please see the Super Parts Book form P-583:

- Speedometer Drives • Yokes & Flanges

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4 ILLUSTRATION OF A TYPICAL EATON TRANSMISSION



INDEX FOR ILLUSTRATION

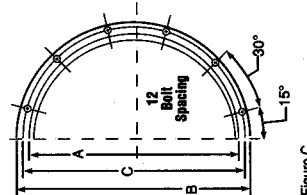
DESCRIPTION	PAGE NO.
Main Case	Page 8
Clutch Housing	Page 8
Countershaft.....	Page 14
Mainshaft.....	Page 12
Idler	Page 16
Input Shaft	Page 17
Shift Bar Housing	Page 10
Yokes and Bars	Page 10

CLUTCH HOUSING

Assembly	Housing	SAE No.	Depth	Drive Gear Cover Pedal Pilot Dia.	Shaft Type	Push or Pull	Material	Dimensions for Mounting Pedal Shaft See Figure A				Nodal Mount
								A	B	C	D	
230548	230549	2	6 1/2	7.22	B	Push	Iron	—	—	2.500	3.590	Lower
227049	226981	2	6	6.25	D	Push	Iron	—	—	2.500	3.625	Upper
235651	235647	2	6 5/8	6.25	A	Pull	Iron	3.750	1.500	—	—	—
3316236	3316237	2	6 5/8	6.25	A	Pull	Alum.	3.750	1.500	—	—	—
A-5205	21646	2	6 5/8	6.25	E	Push	Alum.	—	—	3.000	2.563	—
3316233	3316234	2	6 5/8	7.22	A	Pull	Alum.	3.750	1.500	—	—	—
—	3316241	2	4 3/4	7.25	Fork	Push	Alum.	—	—	See Figure B	—	—

Note: Assemblies listed are complete with Bushings and Grease Fittings.

SAE Numbers: denote clutch housing size. See Figure C.



SAE	Pilot Diameter	Outside Diameter	Bolt Circle Diameter	C	Qty.	Size
1	20 1/8	21 3/4	20 7/8	20 7/8	12	7/16 - 14
2	17 5/8	19 1/4	18 3/8	18 3/8	12	3/8 - 16

Nodal Mounts: used for support of transmission and engine. See Figure D.

Upper Nodal Mount



Lower Nodal Mount

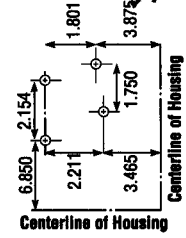
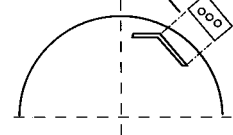


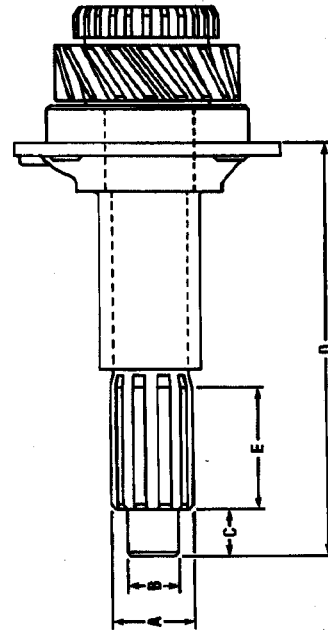
Figure D

INPUT SHAFT AND DRIVE GEAR

Model Series Application: FS-6105

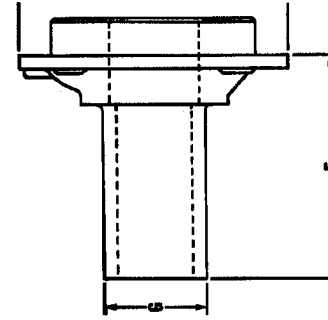
Shaft		Dimensions: Figure A					Dimensions: Figure B			
Part No.	Type	A	B	C	D	E	Use Seal #	Use Cover #	F	G
3316168	Pull	1 3/4"	1.18	.69	10.44	3.50	3315623	3316171	1.40	---
or							3315625	23106	1.25	6.25
21909	Push	1 1/2"	.98	.75	8.61	2.63	235393	3316313	5.08	1.81
21900	Pull	1 3/4"	.98	.81	10.50	3.75	3315623	3316171	1.40	---
21899	Push	1 1/2"	.98	.81	10.50	3.50	21893	3316313	6.73	1.87
21989	Push	1 1/2"	.98	.75	10.35	3.50	235393	3316313	6.20	1.94
21990	Push	1 1/2"	.98	.75	9.85	2.87	235393	3316313	6.20	1.94
21944	Push	1 3/4"	1.18	.75	9.88	3.50	20651	21992	5.83	2.24

Oil Seal No.# 3315623 is available in K-2131Basic Rebuild Kit



Cur 8392-7/87

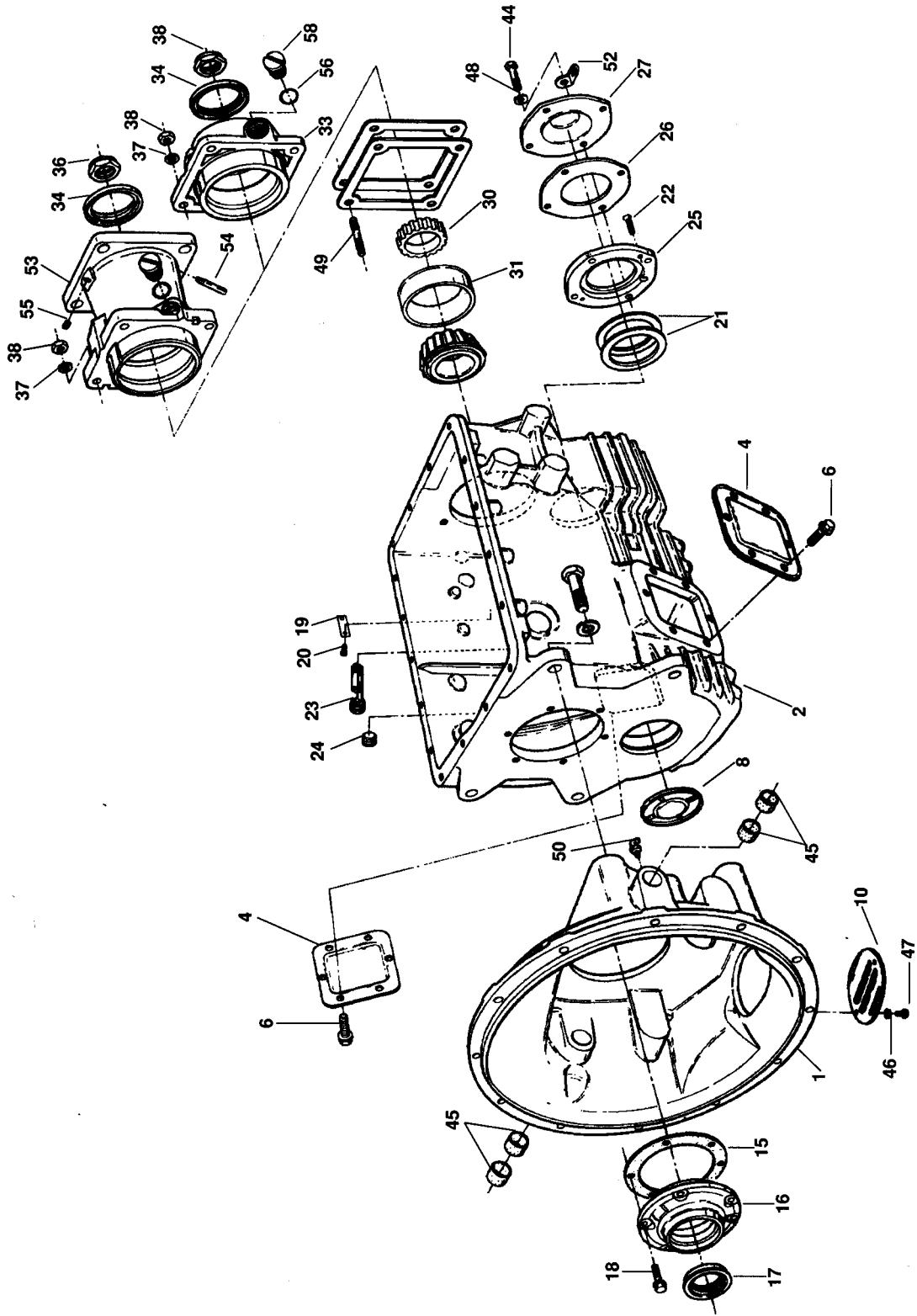
Figure E



Cur 83928-7/87

Figure F

8 CLUTCH HOUSING - CASE
CLUTCH HOUSING-CASE



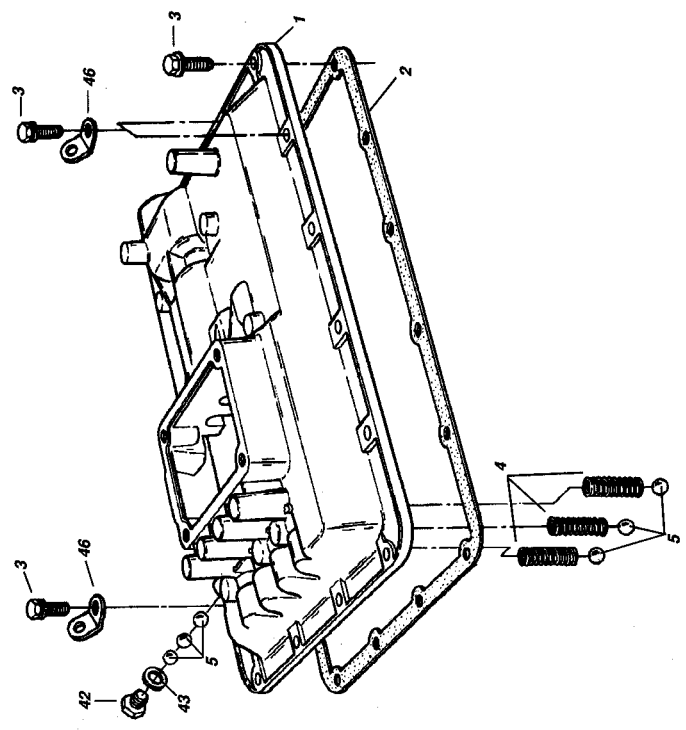
QTY.	ITEM USED	PART NO.	DESCRIPTION	DESCRIPTION	ITEM USED	PART NO.	DESCRIPTION	DESCRIPTION	KIT REFERENCE
1	1		For clutch housing information see page 6		31	711123	Bearing cup		
2	1	21766	Case		32	3315662	Shim .004	RK	S'
or 1	21915	Case						S' RK	
4	2	201398	PTO cover		or	3315663	Shim .007	S' RK	
6	12	239613	Capscrew		or	3315664	Shim .010	S' RK	
8	1	3315679	Plug		or	3315665	Shim .020		
10	1	206466	Hand hole cover		33	1	3315657	Rear bearing cover (magnetic)	
			replaced by 23380		or 1	33156278	Rear bearing cover (mechanical)		
or 1	23380	Hand hole cover			or 2	22020	Rear bearing cover (mechanical)	RK	
11	4	1C1036	Capscrew		34	1	241706	Oil seal	
12	4	4E10	Lockwashers		36	1	235656	Nut	
15	1	3315659	Gasket		37	4	239436	Lockwasher	
16	1		For front bearing cover information see page 7		38	4	86D08	Nut	
17	1		For oil seal information see page 7		44	4	1C620H	Capscrew	
			For oil seal information see page 7		45	4	201966	Bushing	
18	6	239614	Capscrew		46	2	4E04	Lockwasher	
19	1	57000	Name plate		47	2	1C408	Capscrew	
or 1	3312285	Name plate	replaced by 22300		48	4	25E17H	Lockwasher	
or 1	22300	Name plate	replaced by 22300		49	4	239432	Stud Use with 21901 Rear Bearing Cover	
20	2	207873	Screw		or 4	239433	Stud Use with 21947 or 21979 Rear Bearing Cover		
21	3315681	Shim .004			or 4	22151	Stud		
or	3315682	Shim .007			&	22152	Spacer		
or	3315683	Shim .010			50	2	11H15	Use with 21947 Rear Bearing Cover	
or	3315684	Shim .020			52	1	238370	Grease fitting	
22	2	9G416H	Capscrew		53	1	21901	Lifting eye	
23	1	226858	Plug (magnetic)		or 1	21947	Rear bearing cover		
24	1	239619	Plug		or 1	21979	Rear Bearing cover		
25	1	3315668	Bearing retainer		54	1	21450	12 x 3 brake (mechanical)	
26	1	3315671	Gasket		55	1	X-12-208	Rear bearing cover	
27	1	3316141	Rear bearing cover		56	1	14142	12 x3 brake (magnetic)	
30	1	3316160	Speedometer rotor (magnetic)		58	1	203714	Rear bearing cover	

BASIC REBUILD KIT

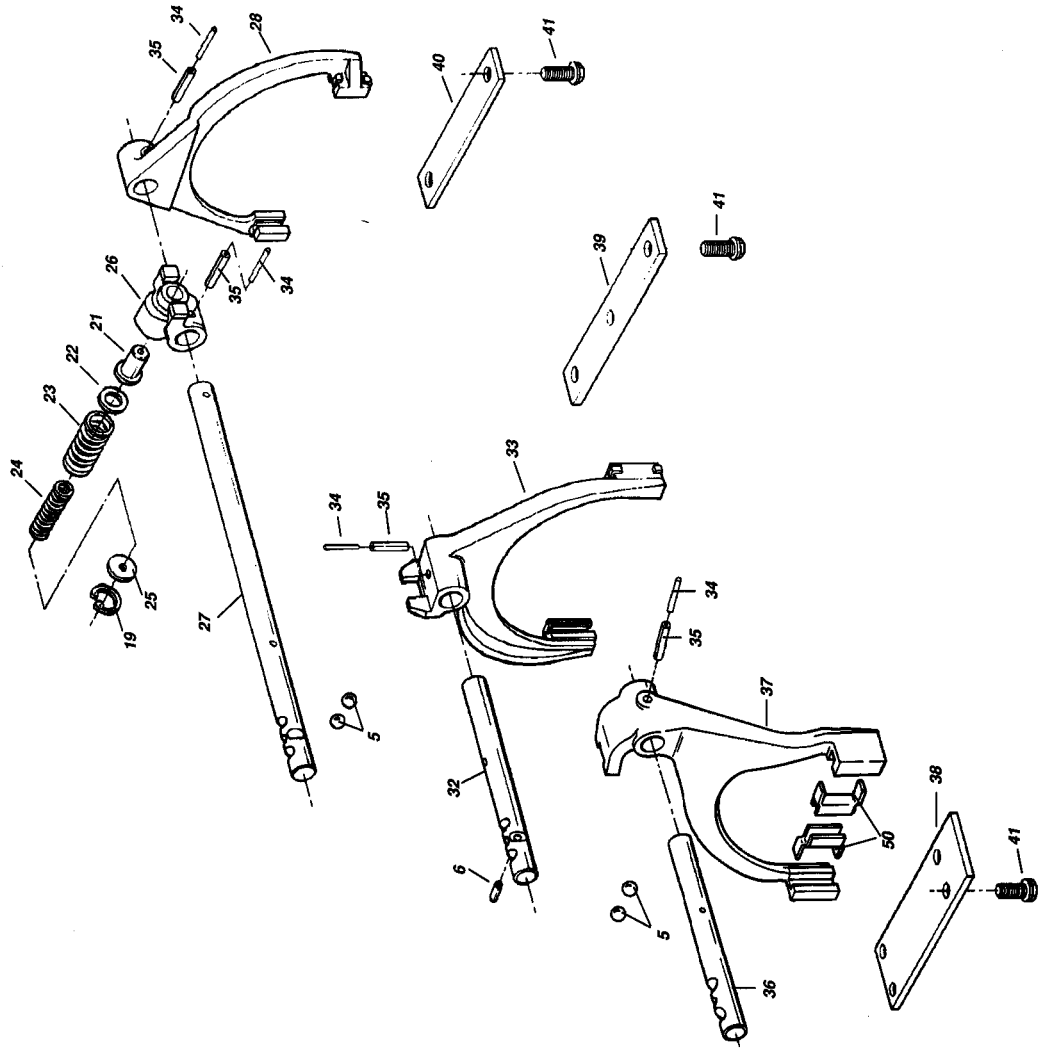
RK K-2131

10 BAR HOUSING - YOKES AND BARS

BAR HOUSING



YOKES AND BARS



ITEM	QTY. USED	PART NO.	DESCRIPTION	KIT REFERENCE	ITEM	QTY. USED	PART NO.	DESCRIPTION	KIT REFERENCE
1	1	3315760	Shift bar housing	S ⁵	32	1	21804	Yoke bar 2nd-3rd	Y ¹
2	1	3315678	Gasket	S ⁵				<i>replaced by 23298</i>	
3	17	239611	Capscrew	RK	or 1	23298		Yoke bar 2nd-3rd	
4	4	3315765	Spring	S ²	33	1	3316208	Yoke 2nd-3rd	Y ¹
5	13	10J14	Ball					<i>order 3316207</i>	
6	2	201044	Pin		34	4	1JM6028	Lock pin	
19	1	7JM23	Snap ring		35	4	1JM3528	Lock pin	
			<i>replaced by 21736</i>		36	1	3315763	Yoke bar 4th-5th	
or 1	1	21736	Snap Ring					<i>replaced by 23299</i>	
21	1	3316296	Plunger		or 1	23299		Yoke bar 4th-5th	
22	1	3316298	Washer		37	1	3316211	Yoke4th-5th	Y ³
23	1	21725	Spring - Use with transmission					<i>order 3316210</i>	
			<i>mounted shift lever and remote control</i>		38	1	3315755	Retainer front	
or 1	1	21723	Spring - Use with remote control					<i>replaced by 23306</i>	
24	1	21726	Spring - Use with transmission		39	1	3315756	Retainer middle	
			<i>mounted shift lever and remote control</i>		40	1	3315757	Retainer rear	
or 1	1	21724	Spring - Use with remote control		41	9	233043	Capscrew w/3315755 Retainer	
25	1	3316295	Washer		or 11	233043		Capscrew w/23306 Retainer	S ⁵
26	1	3316300	Block reverse		42	1	229467	Plug	S ⁵
27	1	3316204	Yoke bar reverse		43	1	229488	Gasket	
			<i>replaced by 23296</i>		46	3	238370	Lifting eye	
or 1	1	23296	Yoke bar reverse	Y ²	50	6	227675	Pad	Y ¹⁻²⁻³
28	1	3316214	Yoke reverse						
			<i>replaced by A-5595</i>						
or 1	1	23510	Yoke reverse	Y ²					
			<i>order A-5595</i>						

PART NO.	KIT NAME	KIT REFERENCE
3316207	Yoke Assembly 2nd-3rd	Y ¹
A-5595	Yoke Assembly Rev.	Y ²
3316210	Yoke Assembly 4th-5th	Y ³
K-2012	Small parts kit	S ²
S-1702	Shift bar housing Assembly	S ⁵

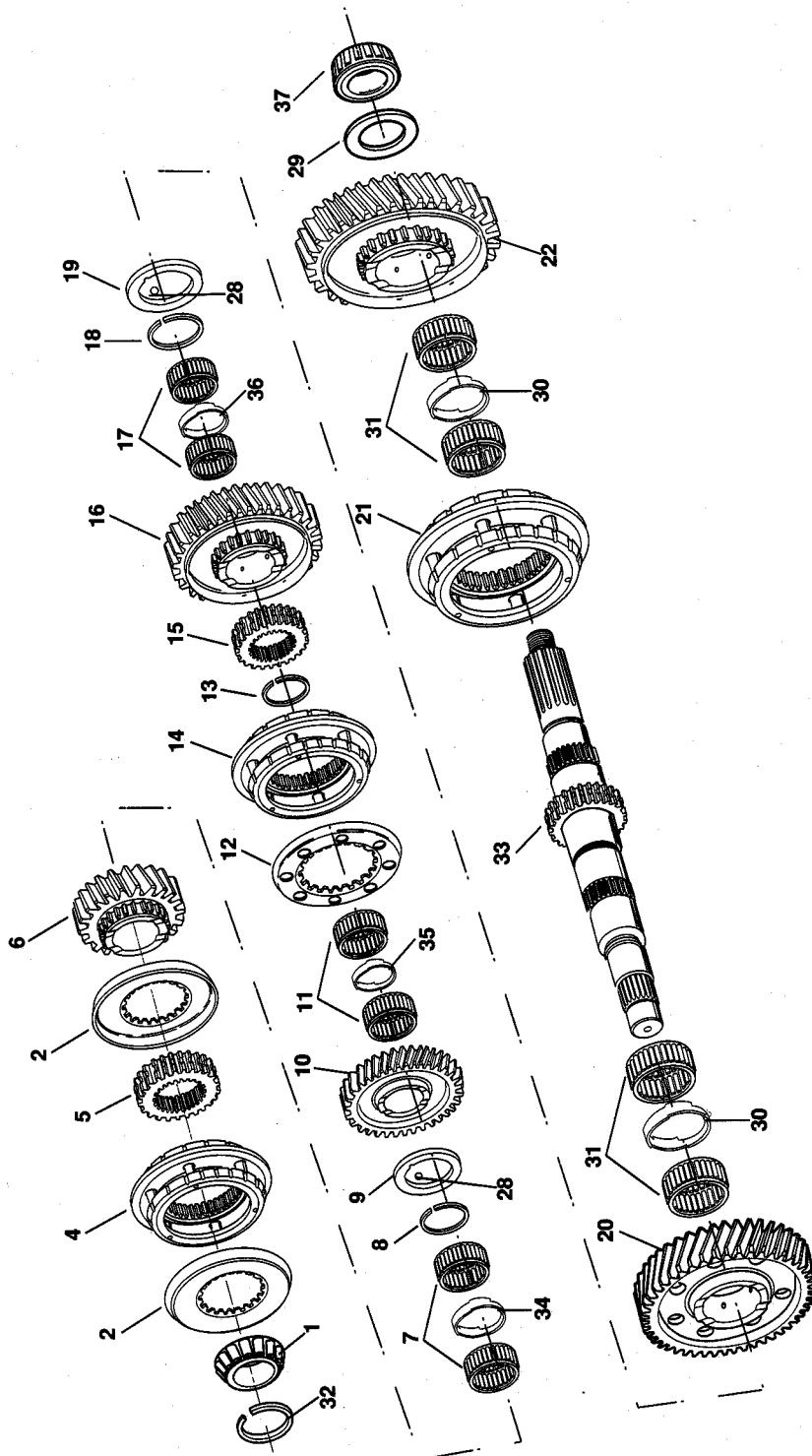
BASIC REBUILD KIT

RK	K-2131
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NOTE: KIT S-1702 ALSO INCLUDES 233113 SHIFT LEVER HOUSING GASKET.

12 MAINSHAFT

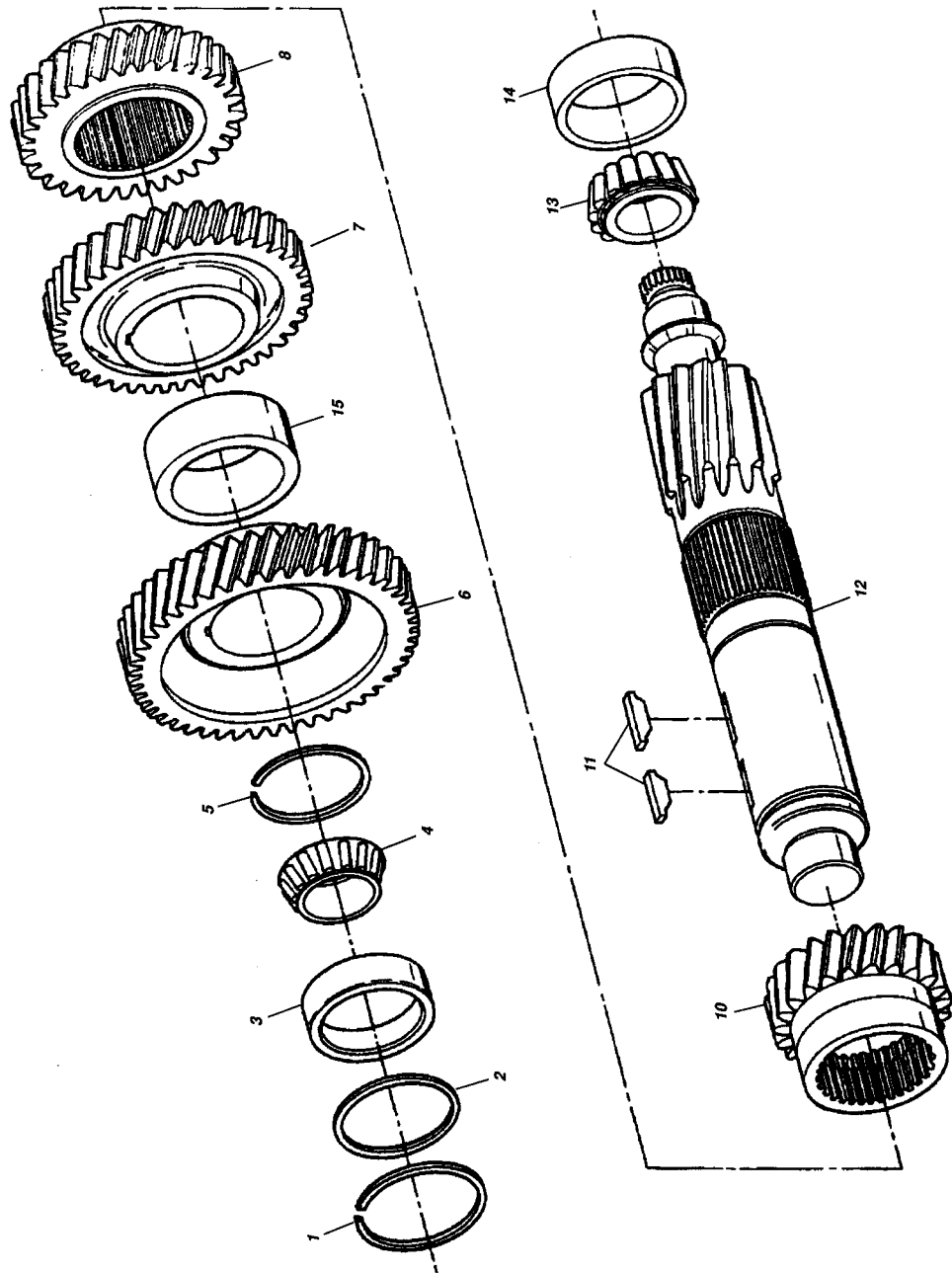
MAINSHAFT
ASSEMBLY



QTY. USED	PART NO.	DESCRIPTION	KIT REFERENCE	QTY. USED	PART NO.	DESCRIPTION	KIT REFERENCE	PART NO.	KIT NAME	KIT REFERENCE
1	1 710787	Bearing cone	RK	17	2 3315722	Bearing	RK	K-2257	Synchronizer kit	S ³
2	2 228306	Synchronizer cup	S ⁴	18	1 3315717	Retainer ring (2.415mm)		K-2017	Synchronizer kit	S ⁴
4	1 A-5254	Synchronizer assembly 4th ("B")	S ⁴	or 1	3315718	Retainer ring (2.515mm)		K-2012	Small parts kit	S ²
5	1 3315738	Clutch hub		19	1 3315719	Washer	S ²			
6	1 3316189	Gear mainshaft 4th ("A")		20	1 3316178	Gear mainshaft 1st				
or 1	3316319	Gear mainshaft 4th ("B")		21	1 A-5246	Synchronizer assembly 1st-reverse replaced by A-5542				
7	2 3315737	Bearing	RK	or 1	A-5542	Synchronizer assembly 1st-reverse				
8	1 3315728	Retainer ring (2.415mm)		or 1	23547	Sliding clutch				
or 1	3315729	Retainer ring (2.515mm)		22	1 3316176	Gear mainshaft reverse	S ²			
9	1 3315727	Washer		28	2 10J06	Ball				
10	1 3316187	Gear mainshaft 3rd		29	1 3315704	Washer				
11	2 4124075	Bearing	RK	30	2 21738	Bearing Spacer				
12	1 3315730	Synchronizer cup	S ³	31	4 3315703	Bearing	RK			
13	1 3315725	Snap ring	RK	32	1 3313798	Snap ring	RK			
14	1 A-5215	Synchronizer assembly 2nd-3rd (order A-5541)	S ³	33	1 3316173	Mainshaft				
or 1	A-5541	Synchronizer assembly 2nd-3rd	S ³			replaced by 23320				
15	1 3315723	Clutch hub	S ³	or 1	23320	Mainshaft				
16	1 3316182	Gear mainshaft 2nd	S ³	34	1 21741	Bearing spacer				
				35	1 21740	Bearing spacer				
				36	1 21739	Bearing spacer				
				37	1 5202047	Bearing cone	RK			
BASIC REBUILD KIT										
RK K-2131										

14 COUNTERSHAFT

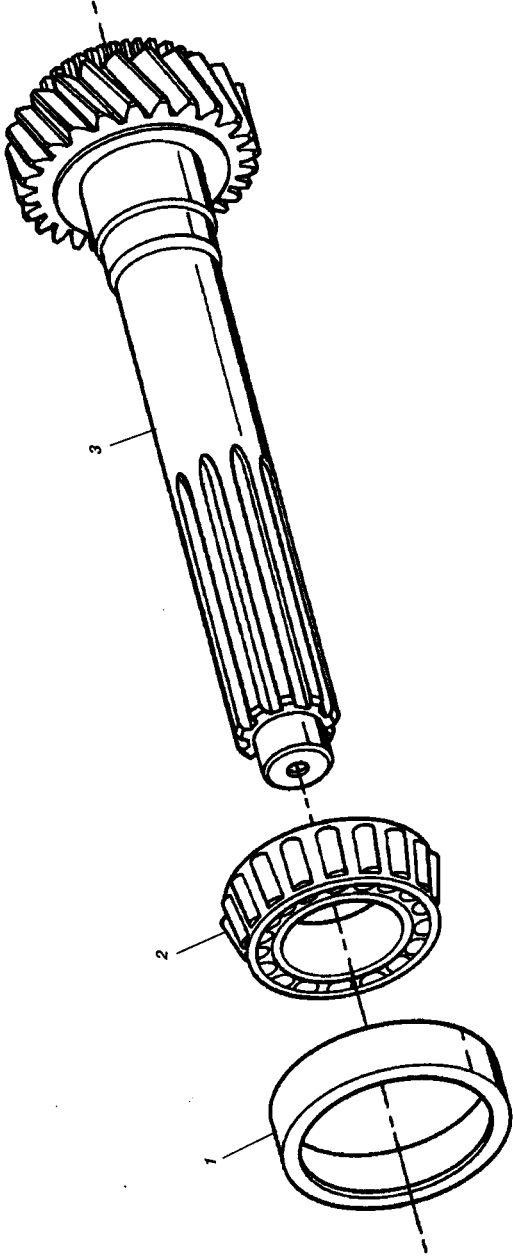
COUNTERSHAFT ASSEMBLY



ITEM	QTY. USED	PART NO.	DESCRIPTION	KIT REFERENCE	ITEM	QTY. USED	PART NO.	DESCRIPTION	KIT REFERENCE	PART NO.	KIT NAME	KIT REFERENCE
1	1	3315686	Snap ring	RK	or	1	3316321	Gear countershaft 4th ("B")		K-2012	Small parts kit	S ²
2	1	3315687	Washer		8	1	3316200	Gear countershaft 3rd				
3	1	1313645	Bearing cup	RK	10	1	3316202	Gear countershaft 2nd				
4	1	791943	Bearing cone	RK	11	2	230292	Key	S ²			
5	1	3315751	Retainer ring (2.64mm)		12	1	3316194	Countershaft				
or	1	3315752	Retainer ring (2.415mm)		13	1	658981	Bearing cone	RK			
6	1	3316196	Gear countershaft drive		14	1	660181	Bearing cup	RK			
7	1	3316198	Gear countershaft 4th ("A")		15	1	3316251	Spacer				
BASIC REBUILD KIT												
RK K-2131												

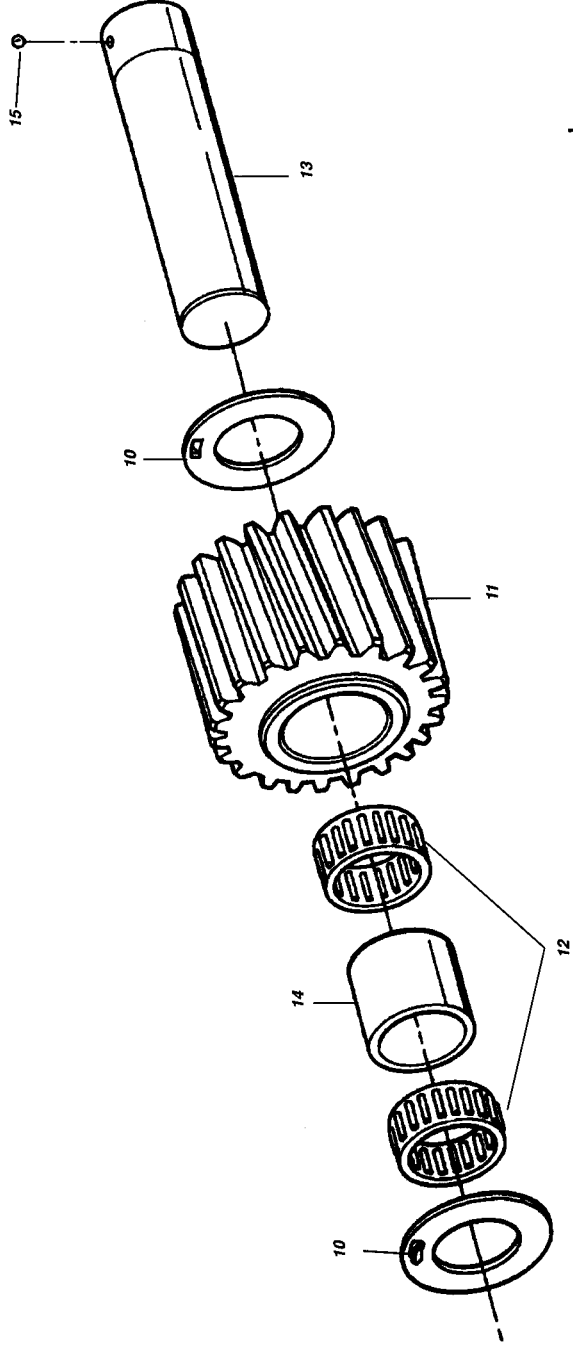
16 DRIVE GEAR - IDLER

DRIVE GEAR
ASSEMBLY



Cut 6392-4/86C

REVERSE IDLER GEAR
ASSEMBLY

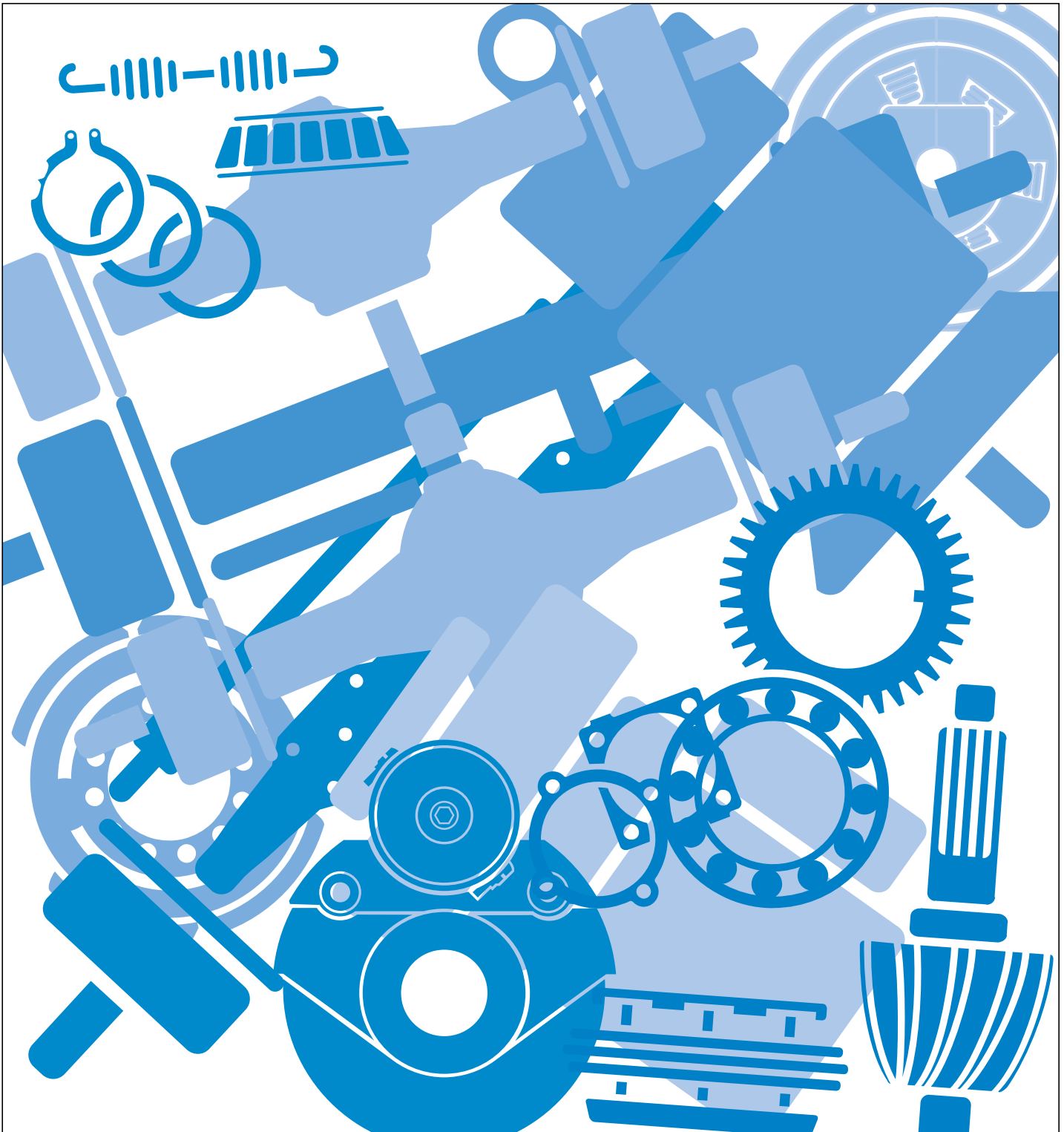


Cut 6378-6/86C

ITEM	QTY. USED	PART NO.	DESCRIPTION	KIT REFERENCE
1	1	675250	Bearing cup	RK
2	1	742259	Bearing cone	RK
3	1	—	For input shaft and drive gear information see page 7	
10	2	3315673	Washer	
11	1	3316163	Gear idler	
12	2	3315674	Bearing	RK
13	1	3315672	Idler shaft	
14	1	3315676	Spacer	
15	1	10J06	Ball	

BASIC REBUILD KIT

RK K-2131



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