

PARTS CATALOG

MS 63YA
SERVIC
MA60H

R-2222B



SERIAL NUMBERS

- 47000001-MA60H
- 37100001-MA70
- 37200001-MA80
- 37300001-MA90
- 37400001-MA100
- 47600001-MA120
- 5600101-MA60H-120
- 5650101-MA60HD-120D

5600452-5600496
Have Chrysler 776
See my 40-80B
Book for eng
parts

MA 60H, 70, 80, 90, 100, AND 120, 150-170 FORK LIFT TRUCKS



White Materials Handling

A SUBSIDIARY OF WHITE MOTOR CORPORATION

HOPKINS, MINNESOTA 55343



Ref. No.	Part No.	DESCRIPTION	No. Pcs.
QUICK REFERENCE CHART			
OIL, FUEL AND AIR FILTERS			
	35P1497	Filter-ump, in transmission case.....	1
	35A5533	Element-engine oil, spin-on (3 per package).....	1
	20-7300207	Element-transmission oil, spin-on, gasoline and LPG.....	1
	20-7300253	Element-hydraulic oil, spin-on.....	1
	35P3109	Element-hydraulic oil, can style, diesel.....	1
	35A8059	Strainer-assy. oil, in hydraulic tank, steering fluid.....	1
	35A12878	Strainer-oil, in hydraulic tank, hydraulic fluid.....	1
	20-7300314	Element-air cleaner, standard.....	1
	10P2881	Element-air cleaner (Cyclopac).....	1
IGNITION SYSTEM			
	20-7000949	Plug-spark, AC C-86 (8 per package).....	6
	20-7000680	Plug-spark, Champion D-16 (10 per package).....	6
	20-7300343	Cap-distributor.....	1
	20-7300344	Rotor-distributor.....	1
	20-7300345	Points-contact, distributor.....	1
	35P1448	Condenser-distributor.....	1
	10P2703	Key-ignition switch.....	1
THERMOSTAT AND BELTS			
	35P2239	Thermostat-engine temperature control, 178°.....	1
	10A12727	Belt-fan and alternator, 49" O.C. for 5-9/16" fan pulley.....	1
	35A8786	Belt-fan and alternator, 48" O.C. for 4-13/16" fan pulley.....	1
	20-3000904	Belt-power steering pump, 35-5/8" O.C.	1
ENGINE GASKET SETS			
	20-7300376	Kit-engine gaskets, TOP.....	1
	20-7300375	Kit-engine gaskets, BOTTOM.....	1
	35R119	Kit-engine gaskets, FRONT COVER.....	1
	20-7300339	Kit-carburetor repair (gasoline).....	1
	20-7300311	Kit-carburetor repair (LP Gas).....	1
	35P3009	Kit-regulator repair (LP Gas).....	1
TRANSMISSION, HYDRAULIC PUMP AND BRAKES			
	20-7380037	Kit-gaskets, transmission overhaul.....	1
	20-7380080	Kit-seals and gasket, transmission control valve.....	1
	10R1193	Kit-seals, hydraulic pump (Webster-RB) (35A12438).....	1
	20-7380071	Kit-seals, hydraulic pump (Webster-RE) (20-3004909).....	1
	20-7301946	Kit-seals, hydraulic pump (Webster-R) (20-3007407).....	1
	20-7301943	Kit-seals, hydraulic pump (Webster) diesel trucks.....	1
	10P3995	Kit-seals, power steering pump (Vickers).....	1
	35P1046	Kit-repair, master cylinder.....	1
	35P338	Kit-repair, wheel cylinder.....	1
STEERING AND TILT CYLINDER KIT			
	20-7380061	Kit-repair, steering cylinder.....	1-2
	20-7300283	Kit-seals, tilt cylinder (Cascade).....	2
HYDRALIZER KITS			
	20-7380118	Kit-seals, hydralizer.....	2
	20-7380117	Kit-repair, hydralizer.....	2



TABLE OF CONTENTS

Accelerator Pedal.....	C-12	Inching Linkage.....	A-23, A-24
Accumulator.....	D-18	Instruments.....	C-8
Air Cleaners.....	E-2	Levers, Transmission Control.....	A-19
Alternator.....	F-2, F-3	Lights.....	C-10, C-11
Axle-Drive.....	A-10	LP Gas Equipment.....	E-5, E-6
Battery and Box.....	F-4	Manifolds, Engine.....	F-9
Brakes.....	A-22	Mast Control Valve.....	D-12, D-13
Breakaway Couplings, Hydraulic.....	D-18	Master Cylinder.....	B-2
Brake Controlled Inching Cylinder....	A-24	Motor, Power Steering.....	B-11, B-13
Brake Linkage.....	A-23	Muffler.....	F-9
Brake Pedal.....	A-23	Neutral Start Switch.....	A-17, A-18
Camshaft, Engine.....	F-14	Oil Filter, Engine, Diesel.....	A-6
Carburetor, Gasoline.....	E-3, E-4	Oil Filter, Engine, Gasoline & LPG.....	F-15
Carburetor, LP Gas.....	E-6	Oil Filter, Transmission.....	A-20, A-21
Clutches, Transmission.....	A-14, A-15	Oil Pan, Engine, Gasoline & LPG.....	F-10
Coil, Ignition.....	F-5	Oil Pump, Engine, Gasoline & LPG.....	F-15
Connecting Rods, Engine.....	F-13	Paint.....	G-3
Controls, Transmission.....	A-19	Parking Brake.....	A-23
Control Valve, Aux. Hyd. Upright... D-13, D-14	D-13, D-14	Pistons, Engine, Gasoline & LPG.....	F-13
Control Valve, Transmission.....	A-17, A-18	Pump, Converter.....	A-13
Converter.....	A-13	Pump, Hydraulic System.....	D-7 thru D-10
Counterweight.....	C-4	Pump, Power Steering (Vickers).....	B-10
Cowl.....	C-5	Precleaner for Air Cleaner.....	E-2
Crankcase, Engine.....	F-10	Radiator.....	F-6, F-7
Crankshaft, Engine.....	F-12	Regulator, LP Gas.....	E-6
Cylinder Head, Engine.....	F-11	Rods, Connecting, Engine.....	F-13
Cylinder, Power Steering.....	B-15	Seat.....	C-7
Cylinder, Tilt.....	D-16	Sediment Filter, Diesel.....	E-7
Decals.....	G-2	Spark Plugs, Engine.....	F-5
Differential.....	A-9, A-10	Starting Motor.....	F-2, F-3
Dipstick, Engine, Gasoline & LPG.....	F-10	Steering Linkage.....	B-4
Dipstick, Hydraulic Tank.....	C-3	Steer Pump, Gasoline and LPG.....	B-6
Dipstick, Transmission.....	A-10	Steer Pump, Diesel.....	D-9, D-10
Distributor, Ignition, Gas & LPG.....	F-5	Tail Lamp.....	C-10
Drive Axle.....	A-10	Tappets, Engine, Gasoline & LPG.....	F-14
Dual Fuel System.....	E-8	Thermostat, Engine, Gasoline & LPG.....	F-6
Engine Mounts.....	C-2, C-3	Tilt Cylinders.....	D-16
Fan, Engine Cooling.....	F-6, F-7	Tires, Drive Wheels.....	A-8
Filler, Fuel Tank.....	E-3, E-7	Tires, Steer Wheels.....	B-4
Flashing Light.....	C-11	Transmission Case.....	A-11, A-12
Floor Plate.....	C-2, C-3	Transmission Clutches, Shafts A-14 thru A-16	A-14 thru A-16
Flywheel, Engine.....	F-12	Transmission Controls.....	A-19
Frame.....	C-2, C-3	Transmission Oil.....	G-3
Fuel Pump, Diesel.....	E-7	Uprights.....	See Upright Catalog
Fuel Pump, Gasoline.....	E-3	Upright Control Valve.....	D-12, D-13
Flywheel, Housing.....	F-11	Valves, Engine, Gasoline & LPG.....	F-14
Gear Cover, Engine, Gas & LPG.....	F-16	Valves, Upright Control.....	D-12, D-13
Governor, Engine, Gas & LPG.....	F-17, F-18	Water Pump, Gasoline & LPG.....	F-8
GS and LPS Parts.....	C-9	Water Pump, Diesel.....	A-6
Hood and Side Panels.....	C-5, C-6	Wheels, Drive.....	A-8
Horn.....	F-3	Wheels, Steer.....	B-4
Horn Button.....	B-5	Wiring Harness.....	C-8
Hydralizers.....	B-3, B-4	NUMERICAL INDEX.....	G-4 thru G-16
Hydraulic Fluid.....	G-3		
Hydraulic Oil Lines, Fittings D-2 thru D-6	D-2 thru D-6		
Hydraulic Pump.....	D-7 thru D-10		

FOREWORD

This catalog contains a complete listing of parts for the lift truck. To assist in determining the part numbers and descriptions, the parts in this catalog are grouped according to their location on the lift truck. Reference numbers only are shown in each illustration. These numbers correspond to those in the reference number column in the list of parts which follows each "exploded view".

TYPICAL PARTS ARE SHOWN, AND MAY NOT ALWAYS BE IDENTICAL WITH CURRENT PARTS. REFER TO THE TEXT. "RIGHT OR LEFT" IS DETERMINED BY FACING TOWARD THE UPRIGHT FROM THE LIFT TRUCK SEAT.

To further assist in locating repair parts, the part numbers are arranged in numerical sequence and indexed at the rear of this catalog.

Component parts of assemblies are listed following the assembly itself and are identified as being part of the assembly by this notation following the description:

Consists of the following ... parts or Includes the following ... parts:

Part numbers only make up an assembly. Hardware items are not to be included.

Parts such as standard bolts, nuts, screws, washers, etc., are indented and listed under the respective individual parts with which they are used. The quantity for many of the shims listed is shown as A.R. (as required). The correct amount of shims should be determined in order to get the proper clearance.

Occasionally new part numbers replace old numbers in the Part No. column. In those cases where the new number substitutes for the old number, the old number will be enclosed in parenthesis and it will appear at the end of the text in description column.

Parts for the Perkins 4.236 diesel engine are to be ordered from your local Perkins Dealer. Give him the Serial Number of engine when ordering parts.

Repair Parts for Continental Engine Spec. F227-8101, F227-8522, F245-8133, F245-8512, are included.

When in need of repair parts, order from your local dealer. All parts orders should plainly specify your name, post office address, and whether shipment is to go by parcel post, express, or freight. Claims of shortage or breakage should be made to the transportation company on receipt of goods.

Before returning repair parts to the factory or parts depot, it is necessary to secure written permission from the Company authorizing the return of such parts. In the returning of repair parts be sure the package is tagged with your name and address. Prepay transportation charges.

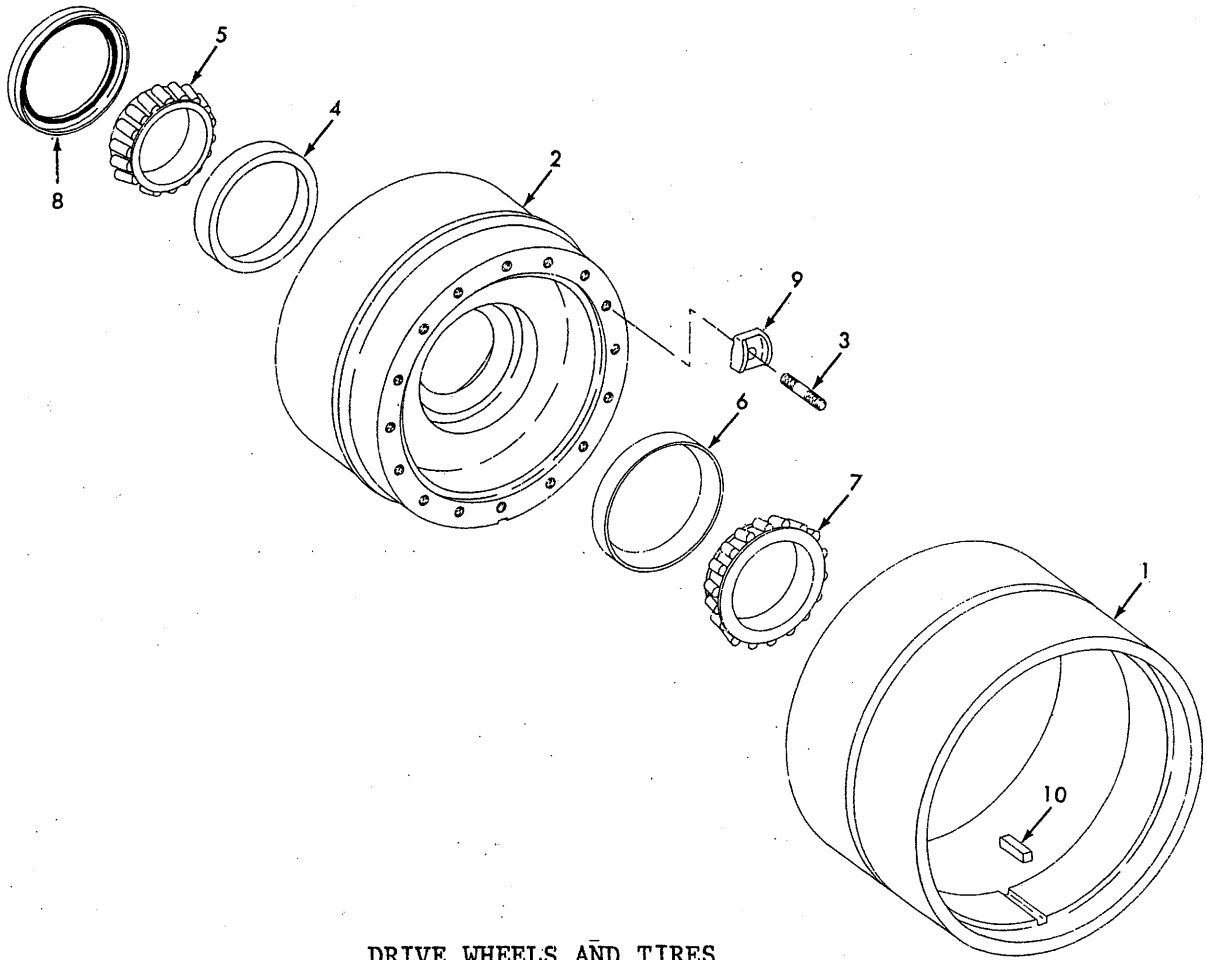
It is the policy of the Company to improve its products whenever it is possible and practical to do so. We reserve the right to make changes or add improvements in the design or construction of parts at any time without incurring the obligation to install such changes on products previously delivered.

GROUPS

- A thru
- B-2 Drive Wheels, Differential, Transmission and Brakes
- B-3 Steering, Hydralizer and Steer Wheels
- C - Frame, Driver Compartment and Wiring Harness
- D - Hydraulics
- E - Carburetion and LP-Gas Systems
- F - Engine and Accessories
- G - Decals, Paint, Engine Oil, Hydraulic Oil and Index

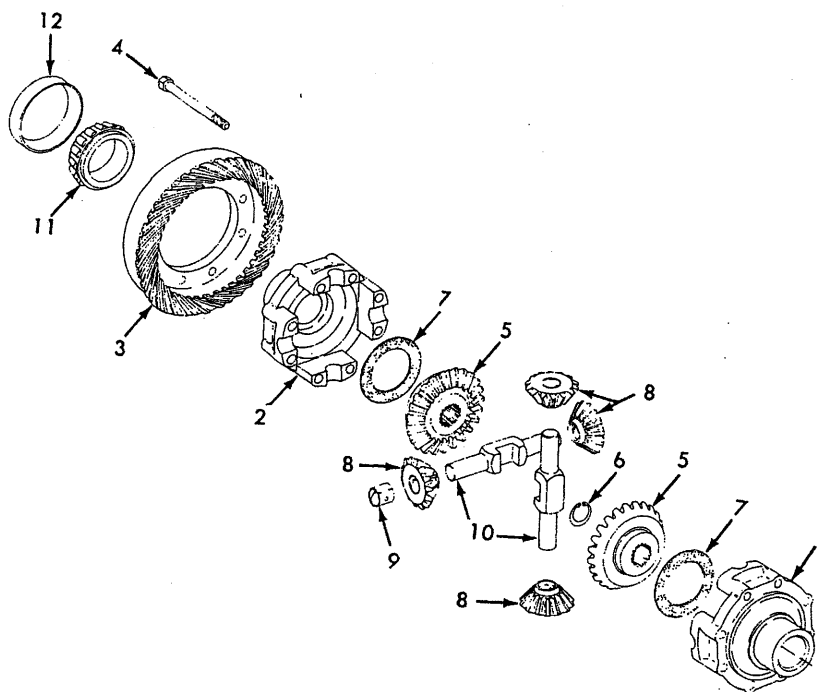
Ref. No.	Part No.	DESCRIPTION	No. Pcs.
		PERKINS DIESEL ENGINE PARTS	
	35A5533	Element - filter, engine oil, (3 per package).....	1
	20-7300769	Element - air cleaner.....	1
	159044AS	Element - fuel filters, on R.H. side of engine.....	1
	20-7301485	Fuel Pump - engine, with primer, on L.H. side.....	1
	31-2753727	Gasket - fuel pump.....	1
	20-7301482	Thermostat - engine, 180°.....	1
	20-7301483	Gasket-thermostat housing.....	1
	20-3005083	Fan Belt - fan and alternator drive, 1/2" x 52" O.C. ..	1
	20-7301487	Water Pump - assembly.....	1
	20-7301488	Kit - repair, water pump.....	1
	20-7301489	Gasket - water pump.....	1
	20-3005590	Bracket - dipstick, engine oil.....	1
		50A4310 Clip - dipstick tube.....	1
		50A1921 Bolt - hex, 5/16"-18 x 7/8".....	1
		50A3730 Nut - hex, 5/16"-18.....	1
	-----	Kits-Perkins Diesel, order from local distributor.....	-
		GASKET KITS FOR LIFT TRUCK	
	20-7380037	Kit - gasket, transmission & differential overhaul..... Consists of the following:	1
		3-M536 "O" Ring 1-35A337 Washer	
		1-941561 "O" Ring 1-35A367 Washer	
		8-10A3397 Washer-copper 1-35A378 Gasket	
		6-10A7799 "O" Ring 1-35A379 Gasket	
		6-50A6322 "O" Ring 1-35A10654 Gasket	
		2-10A9808 "O" Ring 1-35A10658 Gasket	
		2-10A12012 "O" Ring 2-20-3005610 Gasket (MY40-50B)	
		4-10A25016 Ring 1-35P613 Seal	
		4-10A25017 Ring 2-20-3000701 Ring	
		1-35A227 Gasket 2-20-3004833 Gasket	
		2-35A230 Seal (MY40-50B) 1-20-3009076 Ring	
		1-35A310 Gasket 1-20-3009388 Retainer	
		1-35A312 Gasket 1-50A6326 "O" Ring	
		1-20-3008957 Gasket 1-50A6327 "O" Ring	
		1-20-3008986 Gasket 1-50A768 Ring	
		1-35P1498 Gasket 3-50A1749 Stat-O-Seal	
	20-7380080	Kit-seals and gaskets for transmission control valve... Consists of the following:	1
		1-35A378 Gasket 7-20-3009707 "O" Ring	
		1-35A379 Gasket 4-10A16329 Seal	
		1-35A8008 Seal	

Ref. No.	Part No.	DESCRIPTION	No. Pcs.
		GASKET KITS FOR LIFT TRUCK (CONT'D)	
	20-7300376	Kit-engine gaskets, TOP (F227 & F245 Cont.)..... Consists of the following: 1-20-7300372 Gasket 1-9105S Gasket 1-15P66 Gasket 1-10A21533 Gasket 1-9276S Gasket 3-9102S Washer	1
	20-7300375	Kit-engine gaskets, BOTTOM (F227 & F245 Cont.)..... Consists of the following: 2-15P49 Gasket 1-35P2150 Gasket 2-15P510A Seal 1-9158S Gasket 2-35P789 Seal	1
	35R119	Kit-engine gaskets, TIMING GEAR COVER(F227&F245 Cont.) Consists of the following: 1-15P562 Seal 3-15P97 Gasket 1-35P785 Gasket 1-9240S Gasket 1-15P458 Gasket 1-15P173 Gasket	1
	20-7300027	Kit-water pump repair (F227 & F245 Cont.)..... Consists of the following: 1-35P2236 Shaft 1-35P855 Gasket 2-35P1962 Ring 1-15P173 Gasket 1-35P1960 Impeller 1-9240S Gasket 1-35P1961 Seal	1
	20-7300339	Kit-carburetor repair (gasoline).....	1
	20-7300311	Kit-carburetor repair (LP gas).....	1
	35P3009	Kit-regulator repair (LP gas).....	1
	35P338	Kit-wheel cylinder repair.....	2
	35P1046	Kit-master cylinder repair.....	1
	10R1193	Kit-seals, hydraulic pump, Gas & LP (Webster-RB) 35A12438	1
	20-7380071	Kit-seals, hydraulic pump, Gas & LP (Webstr-RE) 20-3004909	1
	20-7301946	Kit-seals, hydraulic pump, Gas & LP (Webster-R) 20-3007407	1
	20-7301943	Kit-seals, hydraulic pump, diesel eng. (Webster).....	1
	10P3995	Kit-seals, power steering pump (Vickers).....	1
	20-7300283	Kit-tilt cylinder repair (Cascade).....	1
	20-7301984	Kit-seals, section, lift and tilt valves (Gresen).....	AR
	20-7302024	Kit-seals, relief valve and anti-cavitation chk. (Gresen)	AR



DRIVE WHEELS AND TIRES

Ref. No.	Part No.	DESCRIPTION	No. Pcs.	Ref. No.	Part No.	DESCRIPTION	No. Pcs.
	20-6008151	Wheel-drive, w/tires, std., MA60H-80	2		20-3008166	+Tire-dr. whl., 22x12x16	2
		Inc. Ref. #1 and tire:			Note (+)	Used w/single dr. tires.	
1	35A12882	Wheel-drive	2	2	35A12985	*Hub-dr. whl. for 1/2 stud	2
	20-3008151	Tire-dr. whl. 22x5x16	4	3	50A5959	*Stud-whl. clmp. 1/2x2-3/4	16
	20-6008154	Wheel-drive, w/tires, std., MA90-100	2		50A5572	*Nut-hex, 1/2-20	16
		Inc. Ref. #1 and tire:	2	2	20-3006396	#Hub-dr. whl. for 5/8 stud	2
1	35A12881	Wheel-drive	2	3	20-3002919	#Stud-whl. clamp, 5/8x3	16
	20-3008154	Tire-dr. whl., 22x6x16	4		50A4985	#Nut-hex, 5/8-18, Gr. 8	16
	20-6008157	Wheel-drive, w/tires, std., MA120	2	4	981044	Cup-brg. hub, innr (50A5752)	2
		Inc. Ref. #1 and tire:		5	981043	Cone-brg. hb. innr (50A5751)	2
1	20-3002590	Wheel-drive	2	6	50A5758	Cup-bearing, hub, outer	2
	20-3008157	Tire-dr. whl., 22x7x16	4	7	50A5757	Cone-bearing, hub, outer	2
	20-6008163	+Wheel-drive, w/tire, 10 wide, optional, MA60H-80	2	8	35A12890	Seal-oil, wheel hub	2
		Inc. Ref. #1 and tire:			20-7301879	Adapter-seal tool (special)	1
1	35A12882	+Wheel-drive	2		20-7301880	Handle-seal tool (special)	1
	20-3008163	+Tire-dr. whl., 22x10x16	2	9	35A12987	*Clamp-wheel, for 1/2 stud	16
	20-6008166	+Wheel-drive, w/tire, 12 wide, optional, MA90-100	2	9	20-3006393	#Clamp-wheel, for 5/8 stud	16
					Note (*)	Used with 1/2 wheel stud.	
1	35A12881	+Wheel-drive	2		Note (#)	Used with 5/8 wheel stud.	
				10	20-3003066	Key-wheel to hub, 1-13/16L	2
					Note:	When replacing 35A12985 hub, #2, order parts w/(#).	



DIFFERENTIAL CAGE

Ref. No.	Part No.	DESCRIPTION	No. Pcs.	Ref. No.	Part No.	DESCRIPTION	
1	35A12887	Cage-differential, R.H.	1	6	30A1710	Ring-axle stop, gear bore	2
2	35A12888	Cage-differential, L.H.	1	7	10A405	Washer-thrust bvl.gr.	2
3	35A243	Gear-ring, 42T., 4.666:1	1	8	20-3010042	Pinion-bevel, 14T(11A5559)	4
3	20-3003489	Gear-ring, 41T., 5.125:1	1	9	10A5560	Bushing-bvl.gr.for 11A5559	4
4	20-3001053	Bolt-gr., GR.8, 1/2-20x5-3/4	8	10	20-3010041	Shaft-bvl.pinion(10A1504)	2
	50A1061	Nut-self lock, 1/2-20	8	11	KA5012A	Cone-brg.cage(10A6712Int)	2
5	35A12886	Gear-bevel, 26T.	2	12	KB5012A	Cup-brg.cage, in axle hsg. (10A1697 Inter.)	2