

* * ENGINEERING CODEBOOK * *

THROUGH THE USE OF THIS CATALOG ALL THE COMPONENT PARTS OF ANY PERMCO PUMP OR MOTOR CAN BE DETERMINED EXCLUDING FASTENERS.

THE FOLLOWING SERIES ARE INCLUDED:

1500 197 2100 257 2500 3000 3100 3700 5000 5100 7500 AND 7600.

EACH MODEL SERIES IS DIVIDED IN THE FOLLOWING MANNER:

- I. SHAFT END COVERS FOLLOWED BY SHAFT END COVER SMALL PARTS.
- II. PORT END COVERS FOLLOWED BY PORT END COVER SMALL PARTS.
- III. GEAR HOUSINGS FOLLOWED BY:
 - A. GEAR HOUSING SMALL PARTS.
 - B. GEARS.
- IV. DRIVE SHAFTS OR GEAR/SHAFTS FOLLOWED BY DRIVE SHAFT SMALL PARTS.
- V. BEARING CARRIERS FOLLOWED BY BEARING CARRIER SMALL PARTS.
- VI. CONNECTING SHAFTS.

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BELOW IS AN EXAMPLE OF HOW TO USE THIS CATALOG:

SINGLE ASSEMBLY CODE: P1500A096ADHR20-05

TANDEM ASSEMBLY CODE: P1500A096AHHR20-05CDQ12-1

P DENOTES PUMP (M DENOTES MOTOR)

1500 SERIES

A OR B MODEL TYPE (A-SINGLE, B-TANDEM)

096 SHAFT END COVER

AD PORT END COVER

HR20 GEAR HOUSING (FIRST)

05 DRIVE SHAFT

C BEARING CARRIER

DQ12 GEAR HOUSING (SECOND)

1 CONNECTING SHAFT

THE ROTATION OF ANY UNIT IS IDENTIFIED BY THE FIRST DIGIT OF THE SHAFT END COVER CODE (SEE INDIVIDUAL SERIES COVER PAGES). THE GEAR SIZE IS DENOTED BY THE TWO (2) DIGITS IN THE GEAR HOUSING CODE.

CODE :	05	07	10	12	15	17	20
SIZE IN INCHES:	1/2	3/4	1	1-1/4	1-1/2	1-3/4	2

ROTATION IS VIEWED LOOKING AT SHAFT END (SHAFT ON TOP.)
AN ASTERISK (*) DENOTES EITHER OBSOLETE OR SPECIAL. PLEASE CONSULT FACTORY AS THEY
MAY BE REPLACED BY OTHER STANDARD ITEMS.

* * ABBREVIATIONS USED IN PART DESCRIPTIONS * *

SHAFT END COVER DESCRIPTIONS

FT MT FOOT MOUNT
 G F TOP GREASE FITTING ON TOP (OTHERS ON BOTTOM)
 PAD MT PAD MOUNT
 PB PIGGYBACK PUMP
 PD PILOT DIAMETER
 PX PILOT EXTENSION
 RD FLG ROUND FLANGE
 W/MTG SLT WITH MOUNTING SLOT
 WD WITH DRAIN
 WD2 WITH DRAIN AT 2 OCLOCK POSITION
 WD8 WITH DRAIN AT 8 OCLOCK POSITION
 WD12 WITH DRAIN AT 12 OCLOCK POSITION
 W2D WITH 2 DRAINS

PORT END COVER DESCRIPTIONS

OS PORTS ARE OUT THE SIDE
 PB PIGGYBACK PUMP
 XSD EXTENDED STUDS

SHAFT DESCRIPTIONS

T TOOTH
 PB PIGGYBACK PUMP
 W/THD END WITH THREADED END

PORTING DESCRIPTIONS

ORB STRAIGHT THREAD. PORT SIZE REFERS TO O.D. OF TUBE.
 SF SPLIT FLANGE PORTS. PORT SIZE REFERS TO FLANGE HOLE DIAMETER.
 T INTERNAL CONNECTIONS TO FRONT & BACK SECTION.
 B CONNECTION TO BACK SECTION.
 F CONNECTION TO FRONT SECTION.

 * * * * *
 * 1500 SERIES *
 * * * * *

SERIES IDENTIFICATION

STUD HOLES - 4 AT 9/16 DIAMETER
 STUD DIA. - 1/2 IN.
 SEPARATE DRIVE SHAFT
 HOUSING HEIGHT - 5-1/4 INCHES
 HOUSING WIDTH - GEAR SIZE + 3/4 INCH
BOLT TORQUE - 100 FT-LBS

GEAR WIDTHS AVAILABLE

1/4 1/2 3/4 1 1-1/4 1-1/2 1-3/4 AND 2 INCHES.

SHAFT END COVERS

THE FIRST DIGIT OF THE SHAFT END COVER CODE DESIGNATES PUMP/MOTOR ROTATION.

		<u>CW</u>	<u>CCW</u>	<u>DBL</u>	<u>PUMP</u>	<u>MOTOR</u>
ALL CODES BEGINNING WITH	0	XX			XX	
	1		XX		XX	
	2			XX	XX	
	8			XX		XX

**** NOTE **** SHAFT END COVER CODES 092 192 292 AND 892 MUST BE USED IN CONJUNCTION WITH DRIVE SHAFT CODES 08 AND 14 EXCLUSIVELY. ALL OTHER SHAFT END COVER CODES AND DRIVE SHAFT CODES CAN BE USED IN ANY COMBINATION.

HOUSINGS

1. NPT THREADS ARE NOT RECOMMENDED FOR USE AT PRESSURES EXCEEDING 2000 PSI.
2. ORB PORTS ARE RECOMMENDED FOR PRESSURES UP TO 2500 PSI. FOR HIGHER PRESSURES CONSULT FACTORY.
3. SPLIT FLANGE PORTS ARE RECOMMENDED FOR PRESSURES ABOVE 2500 PSI. CONSULT FACTORY FOR CORRECT PORTING.

BEARING CARRIER FLOW

FLOW FROM BEARING CARRIER SIDE PORT TO GEAR HOUSING SHOULD NOT EXCEED 15 GPM ON THE SUCTION SIDE OR 30 GPM ON THE PRESSURE SIDE.

PERMCO MODEL: 1500

Shaft End Covers

<u>CODE</u>	<u>QTY</u>	<u>PART NUMBER</u>	<u>D E S C R I P T I O N</u>	<u>CODE</u>	<u>QTY</u>	<u>PART NUMBER</u>	<u>D E S C R I P T I O N</u>
000	1	IZ-0574-7	CW 4 BOLT RD FLG PTO	809	1	IZ-0574-6	DR 4 BOLT RD FLG
001	1	JZ-0574-8	CW 4 BOLT SAE B GF TOP	890	1	KZ-0574-3	DR 2 BOLT SAE A
004	1	SZ-0574-4	CW 2 BOLT SAE B GF TOP	891	1	IZ-0574-5	DR 6 BOLT RD FLG
009	1	IZ-0574-6	CW 4 BOLT RD FLG	892	1	QZ-0574-3	DR 4 BOLT SAE C
090	1	KZ-0574-3	CW 2 BOLT SAE A	894	1	JZ-0574-6	DR 4 BOLT 3 3/4 PILOT DIA
091	1	IZ-0574-5	CW 6 BOLT RD FLG	896	1	SZ-0574-3	DR 2 BOLT SAE B
092	1	QZ-0574-3	CW 4 BOLT SAE C	897	* 1	TZ-0574-3	DR 2 BOLT B SPECIAL
094	1	JZ-0574-6	CW 4 BOLT 3 3/4 PILOT DIA	898	1	UZ-0574-3	DR PAD MT
096	1	SZ-0574-3	CW 2 BOLT SAE B	899	1	JZ-0574-3	DR 4 BOLT SAE B
098	1	UZ-0574-3	CW PAD MT				
099	1	JZ-0574-3	CW 4 BOLT SAE B				
100	1	IZ-0574-7	CCW 4 BOLT RD FLG PTO				
101	1	JZ-0574-8	CCW 4 BOLT SAE B GF TOP				
104	1	SZ-0574-4	CCW 2 BOLT SAE B GF TOP				
109	1	IZ-0574-6	CCW 4 BOLT RD FLG				
190	1	KZ-0574-3	CCW 2 BOLT SAE A				
191	1	IZ-0574-5	CCW 6 BOLT RD FLG				
192	1	QZ-0574-3	CCW 4 BOLT SAE C				
194	1	JZ-0574-6	CCW 4 BOLT 3 3/4 PILOT DIA				
196	1	SZ-0574-3	CCW 2 BOLT SAE B				
198	1	UZ-0574-3	CCW PAD MT				
199	1	JZ-0574-3	CCW 4 BOLT SAE B				
200	1	IZ-0574-7	DR 4 BOLT RD FLG PTO				
201	1	JZ-0574-8	DR 4 BOLT SAE B GF TOP				
203	1	UZ-0574-4	DR PAD MT 4 3/8 WIDE				
204	1	SZ-0574-4	DR 2 BOLT SAE B GF TOP				
209	1	IZ-0574-6	DR 4 BOLT RD FLG PTO				
290	1	KZ-0574-3	DR 2 BOLT SAE A				
291	1	IZ-0574-5	DR 6 BOLT RD FLG				
292	1	QZ-0574-3	DR 4 BOLT SAE C				
294	1	JZ-0574-6	DR 4 BOLT 3 3/4 PILOT DIA				
296	1	SZ-0574-3	DR 2 BOLT SAE B				
297	* 1	TZ-0574-3	DR 2 BOLT B SPECIAL				
298	1	UZ-0574-3	DR PAD MT 4 1/4 WIDE				
299	1	JZ-0574-3	DR 4 BOLT SAE B				
801	1	JZ-0574-8	DR 4 BOLT SAE B GF TOP				
802	1	JZ-0574-3	DR 4 BOLT SAE B				
803	1	UZ-0574-4	DR PAD MT 4 3/8 WIDE				
804	1	SZ-0574-3	DR 2 BOLT SAE B GF TOP				
805	1	JZ-0574-9	DR 4 BOLT 3 1/4 PILOT DIA				

PERMCO MODEL: 1500

SHAFT END COVER

CODE	QTY	PART NUMBER	D E S C R I P T I O N	CODE	QTY	PART NUMBER	D E S C R I P T I O N
000	3	J-2909-16	1500 BACK UP RING	009	1	W031	1200 1500 BEARING SEAL
000	1	K-2995-121	1500 O'RING	009	1	W4-7	GREASE FITTING
000	2	M-0921	1500 CROWNED ROLLER BRGN	009	1	W58-34	1200 BALL BEARING
000	2	Q-2995-7	1500 O'RING	009	1	ZC-1909	1500 SHAFT BUSHING
000	1	S-0280	PLUG	009	1	ZZ-0558	1200 1500 BEARING SHIELD
000	1	U-0558	1500 BEARING SPACER				
000	1	W023-206	SPIROLOX SNAP RING	090	1	AZ-0558	1200 1500 BEARING SHIELD
000	1	W031	1200 1500 BEARING SEAL	090	3	J-2909-16	1500 BACK UP RING
000	1	W4-7	GREASE FITTING	090	1	JZ-0558	1500 BEARING SPACER
000	1	W58-34	1200 BALL BEARING	090	1	K-2995-121	1500 O'RING
000	1	ZC-1909	1500 SHAFT BUSHING	090	2	M-0921	1500 CROWNED ROLLER BRGN
000	1	ZZ-0558	1200 1500 BEARING SHIELD	090	2	Q-2995-7	1500 O'RING
				090	1	S-0280	PLUG
001	1	AZ-0558	1200 1500 BEARING SHIELD	090	1	W023-244	SPIROLOX SNAP RING
001	3	J-2909-16	1500 BACK UP RING	090	1	W031-0	1200 1500 BEARING SEAL
001	1	JZ-0558	1500 BEARING SPACER	090	1	W4-4	GREASE FITTING
001	1	K-2995-121	1500 O'RING	090	1	W58-40	1200 1500 BALL BEARING
001	2	M-0921	1500 CROWNED ROLLER BRGN	090	1	ZC-1909	1500 SHAFT BUSHING
001	2	Q-2995-7	1500 O'RING				
001	1	S-0280	PLUG	091	3	J-2909-16	1500 BACK UP RING
001	1	W0-19	PIPE PLUG/SOC HD 1/8-27 NPT	091	1	K-2995-121	1500 O'RING
001	1	W023-244	SPIROLOX SNAP RING	091	2	M-0921	1500 CROWNED ROLLER BRGN
001	1	W031-0	1200 1500 BEARING SEAL	091	2	Q-2995-7	1500 O'RING
001	1	W4-4	GREASE FITTING	091	1	S-0280	PLUG
001	1	W58-40	1200 1500 BALL BEARING	091	1	U-0558	1500 BEARING SPACER
001	1	ZC-1909	1500 SHAFT BUSHING	091	1	W023-206	SPIROLOX SNAP RING
				091	1	W031	1200 1500 BEARING SEAL
004	1	AZ-0558	1200 1500 BEARING SHIELD	091	1	W4-7	GREASE FITTING
004	3	J-2909-16	1500 BACK UP RING	091	1	W58-34	1200 BALL BEARING
004	1	JZ-0558	1500 BEARING SPACER	091	1	ZC-1909	1500 SHAFT BUSHING
004	1	K-2995-121	1500 O'RING	091	1	ZZ-0558	1200 1500 BEARING SHIELD
004	2	M-0921	1500 CROWNED ROLLER BRGN				
004	2	Q-2995-7	1500 O'RING	092	1	GZ-0558	1500 BEARING SPACER
004	1	S-0280	PLUG	092	1	IZ-0558	1500 BEARING SPACER
004	1	W023-244	SPIROLOX SNAP RING	092	3	J-2909-16	1500 BACK UP RING
004	1	W031-0	1200 1500 BEARING SEAL	092	1	K-2995-121	1500 O'RING
004	1	W4-4	GREASE FITTING	092	2	M-0921	1500 CROWNED ROLLER BRGN
004	1	W58-40	1200 1500 BALL BEARING	092	2	Q-2995-7	1500 O'RING
004	1	ZC-1909	1500 SHAFT BUSHING	092	1	S-0280	PLUG
				092	1	W096-314	1500 SNAP RING
009	3	J-2909-16	1500 BACK UP RING	092	1	W4-4	GREASE FITTING
009	1	K-2995-121	1500 O'RING	092	1	W58-49	1500 BALL BEARING
009	2	M-0921	1500 CROWNED ROLLER BRGN	092	1	ZC-1909	1500 SHAFT BUSHING
009	2	Q-2995-7	1500 O'RING				
009	1	S-0280	PLUG	094	1	AZ-0558	1200 1500 BEARING SHIELD
009	1	U-0558	1500 BEARING SPACER	094	3	J-2909-16	1500 BACK UP RING
009	1	W023-206	SPIROLOX SNAP RING	094	1	JZ-0558	1500 BEARING SPACER

PERMCO MODEL: 1500

SHAFT END COVER SMALL PARTS

CODE	QTY	PART NUMBER	D E S C R I P T I O N	CODE	QTY	PART NUMBER	D E S C R I P T I O N
094	1	K-2995-121	1500 O'RING	099	1	ZC-1909	1500 SHAFT BUSHING
094	2	M-0921	1500 CROWNED ROLLER BRGN				
094	2	Q-2995-7	1500 O'RING	100	3	J-2909-16	1500 BACK UP RING
094	1	S-0280	PLUG	100	1	K-2995-121	1500 O'RING
094	1	W023-244	SPIROLOX SNAP RING	100	2	M-0921	1500 CROWNED ROLLER BRGN
094	1	W031-0	1200 1500 BEARING SEAL	100	2	Q-2995-7	1500 O'RING
094	1	W4-4	GREASE FITTING	100	1	S-0280	PLUG
094	1	W58-40	1200 1500 BALL BEARING	100	1	U-0558	1500 BEARING SPACER
094	1	ZC-1909	1500 SHAFT BUSHING	100	1	W023-206	SPIROLOX SNAP RING
				100	1	W031	1200 1500 BEARING SEAL
096	1	AZ-0558	1200 1500 BEARING SHIELD	100	1	W4-7	GREASE FITTING
096	3	J-2909-16	1500 BACK UP RING	100	1	W58-34	1200 BALL BEARING
096	1	JZ-0558	1500 BEARING SPACER	100	1	ZC-1909	1500 SHAFT BUSHING
096	1	K-2995-121	1500 O'RING	100	1	ZZ-0558	1200 1500 BEARING SHIELD
096	2	M-0921	1500 CROWNED ROLLER BRGN				
096	2	Q-2995-7	1500 O'RING	101	1	AZ-0558	1200 1500 BEARING SHIELD
096	1	S-0280	PLUG	101	3	J-2909-16	1500 BACK UP RING
096	1	W023-244	SPIROLOX SNAP RING	101	1	JZ-0558	1500 BEARING SPACER
096	1	W031-0	1200 1500 BEARING SEAL	101	1	K-2995-121	1500 O'RING
096	1	W4-4	GREASE FITTING	101	2	M-0921	1500 CROWNED ROLLER BRGN
096	1	W58-40	1200 1500 BALL BEARING	101	2	Q-2995-7	1500 O'RING
096	1	ZC-1909	1500 SHAFT BUSHING	101	1	S-0280	PLUG
				101	1	W0-19	PIPE PLUG/SOC HD 1/8-27 NPT
098	1	AZ-0558	1200 1500 BEARING SHIELD	101	1	W023-244	SPIROLOX SNAP RING
098	3	J-2909-16	1500 BACK UP RING	101	1	W031-0	1200 1500 BEARING SEAL
098	1	JZ-0558	1500 BEARING SPACER	101	1	W4-4	GREASE FITTING
098	1	K-2995-121	1500 O'RING	101	1	W58-40	1200 1500 BALL BEARING
098	2	M-0921	1500 CROWNED ROLLER BRGN	101	1	ZC-1909	1500 SHAFT BUSHING
098	2	Q-2995-7	1500 O'RING				
098	1	S-0280	PLUG	104	1	AZ-0558	1200 1500 BEARING SHIELD
098	1	W023-244	SPIROLOX SNAP RING	104	3	J-2909-16	1500 BACK UP RING
098	1	W031-0	1200 1500 BEARING SEAL	104	1	JZ-0558	1500 BEARING SPACER
098	1	W4-4	GREASE FITTING	104	1	K-2995-121	1500 O'RING
098	1	W58-40	1200 1500 BALL BEARING	104	2	M-0921	1500 CROWNED ROLLER BRGN
098	1	ZC-1909	1500 SHAFT BUSHING	104	2	Q-2995-7	1500 O'RING
				104	1	S-0280	PLUG
099	1	AZ-0558	1200 1500 BEARING SHIELD	104	1	W023-244	SPIROLOX SNAP RING
099	3	J-2909-16	1500 BACK UP RING	104	1	W031-0	1200 1500 BEARING SEAL
099	1	JZ-0558	1500 BEARING SPACER	104	1	W4-4	GREASE FITTING
099	1	K-2995-121	1500 O'RING	104	1	W58-40	1200 1500 BALL BEARING
099	2	M-0921	1500 CROWNED ROLLER BRGN	104	1	ZC-1909	1500 SHAFT BUSHING
099	2	Q-2995-7	1500 O'RING				
099	1	S-0280	PLUG	109	3	J-2909-16	1500 BACK UP RING
099	1	W023-244	SPIROLOX SNAP RING	109	1	K-2995-121	1500 O'RING
099	1	W031-0	1200 1500 BEARING SEAL	109	2	M-0921	1500 CROWNED ROLLER BRGN
099	1	W4-4	GREASE FITTING	109	2	Q-2995-7	1500 O'RING
099	1	W58-40	1200 1500 BALL BEARING	109	1	S-0280	PLUG

PERMCO MODEL: 1500

SHAFT END COVER SMALL PARTS

CODE	QTY	PART NUMBER	D E S C R I P T I O N	CODE	QTY	PART NUMBER	D E S C R I P T I O N
109	1	U-0558	1500 BEARING SPACER	194	3	J-2909-16	1500 BACK UP RING
109	1	W023-206	SPIROLOX SNAP RING	194	1	JZ-0558	1500 BEARING SPACER
109	1	W031	1200 1500 BEARING SEAL	194	1	K-2995-121	1500 O'RING
109	1	W4-7	GREASE FITTING	194	2	M-0921	1500 CROWNED ROLLER BRGN
109	1	W58-34	1200 BALL BEARING	194	2	Q-2995-7	1500 O'RING
109	1	ZC-1909	1500 SHAFT BUSHING	194	1	S-0280	PLUG
109	1	ZZ-0558	1200 1500 BEARING SHIELD	194	1	W023-244	SPIROLOX SNAP RING
				194	1	W031-0	1200 1500 BEARING SEAL
190	1	AZ-0558	1200 1500 BEARING SHIELD	194	1	W4-4	GREASE FITTING
190	3	J-2909-16	1500 BACK UP RING	194	1	W58-40	1200 1500 BALL BEARING
190	1	JZ-0558	1500 BEARING SPACER	194	1	ZC-1909	1500 SHAFT BUSHING
190	1	K-2995-121	1500 O'RING				
190	2	M-0921	1500 CROWNED ROLLER BRGN	196	1	AZ-0558	1200 1500 BEARING SHIELD
190	2	Q-2995-7	1500 O'RING	196	3	J-2909-16	1500 BACK UP RING
190	1	S-0280	PLUG	196	1	JZ-0558	1500 BEARING SPACER
190	1	W023-244	SPIROLOX SNAP RING	196	1	K-2995-121	1500 O'RING
190	1	W031-0	1200 1500 BEARING SEAL	196	2	M-0921	1500 CROWNED ROLLER BRGN
190	1	W4-4	GREASE FITTING	196	2	Q-2995-7	1500 O'RING
190	1	W58-40	1200 1500 BALL BEARING	196	1	S-0280	PLUG
190	1	ZC-1909	1500 SHAFT BUSHING	196	1	W023-244	SPIROLOX SNAP RING
				196	1	W031-0	1200 1500 BEARING SEAL
191	3	J-2909-16	1500 BACK UP RING	196	1	W4-4	GREASE FITTING
191	1	K-2995-121	1500 O'RING	196	1	W58-40	1200 1500 BALL BEARING
191	2	M-0921	1500 CROWNED ROLLER BRGN	196	1	ZC-1909	1500 SHAFT BUSHING
191	2	Q-2995-7	1500 O'RING				
191	1	S-0280	PLUG	198	1	AZ-0558	1200 1500 BEARING SHIELD
191	1	U-0558	1500 BEARING SPACER	198	3	J-2909-16	1500 BACK UP RING
191	1	W023-206	SPIROLOX SNAP RING	198	1	JZ-0558	1500 BEARING SPACER
191	1	W031	1200 1500 BEARING SEAL	198	1	K-2995-121	1500 O'RING
191	1	W4-7	GREASE FITTING	198	2	M-0921	1500 CROWNED ROLLER BRGN
191	1	W58-34	1200 BALL BEARING	198	2	Q-2995-7	1500 O'RING
191	1	ZC-1909	1500 SHAFT BUSHING	198	1	S-0280	PLUG
191	1	ZZ-0558	1200 1500 BEARING SHIELD	198	1	W023-244	SPIROLOX SNAP RING
				198	1	W031-0	1200 1500 BEARING SEAL
192	1	GZ-0558	1500 BEARING SPACER	198	1	W4-4	GREASE FITTING
192	1	IZ-0558	1500 BEARING SPACER	198	1	W58-40	1200 1500 BALL BEARING
192	3	J-2909-16	1500 BACK UP RING	198	1	ZC-1909	1500 SHAFT BUSHING
192	1	K-2995-121	1500 O'RING				
192	2	M-0921	1500 CROWNED ROLLER BRGN	199	1	AZ-0558	1200 1500 BEARING SHIELD
192	2	Q-2995-7	1500 O'RING	199	3	J-2909-16	1500 BACK UP RING
192	1	S-0280	PLUG	199	1	JZ-0558	1500 BEARING SPACER
192	1	W096-314	1500 SNAP RING	199	1	K-2995-121	1500 O'RING
192	1	W4-4	GREASE FITTING	199	2	M-0921	1500 CROWNED ROLLER BRGN
192	1	W58-49	1500 BALL BEARING	199	2	Q-2995-7	1500 O'RING
192	1	ZC-1909	1500 SHAFT BUSHING	199	1	S-0280	PLUG
				199	1	W023-244	SPIROLOX SNAP RING
194	1	AZ-0558	1200 1500 BEARING SHIELD	199	1	W031-0	1200 1500 BEARING SEAL

PERMCO MODEL: 1500

SHAFT END COVER SMALL PARTS

CODE	QTY	PART NUMBER	D E S C R I P T I O N	CODE	QTY	PART NUMBER	D E S C R I P T I O N
199	1	W4-4	GREASE FITTING	204	1	JZ-0558	1500 BEARING SPACER
199	1	W58-40	1200 1500 BALL BEARING	204	1	K-2995-121	1500 O'RING
199	1	ZC-1909	1500 SHAFT BUSHING	204	2	L-0280-K	CHECK VALVE ASSY
				204	2	M-0921	1500 CROWNED ROLLER BRGN
200	3	J-2909-16	1500 BACK UP RING	204	2	Q-2995-7	1500 O'RING
200	1	K-2995-121	1500 O'RING	204	1	W023-244	SPIROLOX SNAP RING
200	2	L-0280-K	CHECK VALVE ASSY	204	1	W031-0	1200 1500 BEARING SEAL
200	2	M-0921	1500 CROWNED ROLLER BRGN	204	1	W4-4	GREASE FITTING
200	2	Q-2995-7	1500 O'RING	204	1	W58-40	1200 1500 BALL BEARING
200	1	U-0558	1500 BEARING SPACER	204	1	ZC-1909	1500 SHAFT BUSHING
200	1	W023-206	SPIROLOX SNAP RING				
200	1	W031	1200 1500 BEARING SEAL	209	3	J-2909-16	1500 BACK UP RING
200	1	W4-7	GREASE FITTING	209	1	K-2995-121	1500 O'RING
200	1	W58-34	1200 BALL BEARING	209	2	L-0280-K	CHECK VALVE ASSY
200	1	ZC-1909	1500 SHAFT BUSHING	209	2	M-0921	1500 CROWNED ROLLER BRGN
200	1	ZZ-0558	1200 1500 BEARING SHIELD	209	2	Q-2995-7	1500 O'RING
				209	1	U-0558	1500 BEARING SPACER
201	1	AZ-0558	1200 1500 BEARING SHIELD	209	1	W023-206	SPIROLOX SNAP RING
201	3	J-2909-16	1500 BACK UP RING	209	1	W031	1200 1500 BEARING SEAL
201	1	JZ-0558	1500 BEARING SPACER	209	1	W4-7	GREASE FITTING
201	1	K-2995-121	1500 O'RING	209	1	W58-34	1200 BALL BEARING
201	2	L-0280-K	CHECK VALVE ASSY	209	1	ZC-1909	1500 SHAFT BUSHING
201	2	M-0921	1500 CROWNED ROLLER BRGN	209	1	ZZ-0558	1200 1500 BEARING SHIELD
201	2	Q-2995-7	1500 O'RING				
201	1	W0-19	PIPE PLUG/SOC HD 1/8-27 NPT	290	1	AZ-0558	1200 1500 BEARING SHIELD
201	1	W023-244	SPIROLOX SNAP RING	290	3	J-2909-16	1500 BACK UP RING
201	1	W031-0	1200 1500 BEARING SEAL	290	1	JZ-0558	1500 BEARING SPACER
201	1	W4-4	GREASE FITTING	290	1	K-2995-121	1500 O'RING
201	1	W58-40	1200 1500 BALL BEARING	290	2	L-0280-K	CHECK VALVE ASSY
201	1	ZC-1909	1500 SHAFT BUSHING	290	2	M-0921	1500 CROWNED ROLLER BRGN
				290	2	Q-2995-7	1500 O'RING
203	1	AZ-0558	1200 1500 BEARING SHIELD	290	1	W023-244	SPIROLOX SNAP RING
203	3	J-2909-16	1500 BACK UP RING	290	1	W031-0	1200 1500 BEARING SEAL
203	1	JZ-0558	1500 BEARING SPACER	290	1	W4-4	GREASE FITTING
203	1	K-2995-121	1500 O'RING	290	1	W58-40	1200 1500 BALL BEARING
203	2	L-0280-K	CHECK VALVE ASSY	290	1	ZC-1909	1500 SHAFT BUSHING
203	2	M-0921	1500 CROWNED ROLLER BRGN				
203	2	Q-2995-7	1500 O'RING	291	3	J-2909-16	1500 BACK UP RING
203	1	W0-1	PIPE PLUG/SQ HD 1/8 NPT	291	1	K-2995-121	1500 O'RING
203	1	W023-244	SPIROLOX SNAP RING	291	2	L-0280-K	CHECK VALVE ASSY
203	1	W031-0	1200 1500 BEARING SEAL	291	2	M-0921	1500 CROWNED ROLLER BRGN
203	1	W4-4	GREASE FITTING	291	2	Q-2995-7	1500 O'RING
203	1	W58-40	1200 1500 BALL BEARING	291	1	U-0558	1500 BEARING SPACER
203	1	ZC-1909	1500 SHAFT BUSHING	291	1	W023-206	SPIROLOX SNAP RING
				291	1	W031	1200 1500 BEARING SEAL
204	1	AZ-0558	1200 1500 BEARING SHIELD	291	1	W4-7	GREASE FITTING
204	3	J-2909-16	1500 BACK UP RING	291	1	W58-34	1200 BALL BEARING

PERMCO MODEL: 1500

SHAFT END COVER SMALL PARTS

CODE	QTY	PART NUMBER	D E S C R I P T I O N	CODE	QTY	PART NUMBER	D E S C R I P T I O N
291	1	ZC-1909	1500 SHAFT BUSHING	297	2	Q-2995-7	1500 O'RING
291	1	ZZ-0558	1200 1500 BEARING SHIELD	297	1	W023-244	SPIROLOX SNAP RING
				297	1	W031-0	1200 1500 BEARING SEAL
292	1	GZ-0558	1500 BEARING SPACER	297	1	W4-4	GREASE FITTING
292	1	IZ-0558	1500 BEARING SPACER	297	1	W58-40	1200 1500 BALL BEARING
292	3	J-2909-16	1500 BACK UP RING	297	1	ZC-1909	1500 SHAFT BUSHING
292	1	K-2995-121	1500 O'RING				
292	2	L-0280-K	CHECK VALVE ASSY	298	1	AZ-0558	1200 1500 BEARING SHIELD
292	2	M-0921	1500 CROWNED ROLLER BRGN	298	3	J-2909-16	1500 BACK UP RING
292	2	Q-2995-7	1500 O'RING	298	1	JZ-0558	1500 BEARING SPACER
292	1	W096-314	1500 SNAP RING	298	1	K-2995-121	1500 O'RING
292	1	W4-4	GREASE FITTING	298	2	L-0280-K	CHECK VALVE ASSY
292	1	W58-49	1500 BALL BEARING	298	2	M-0921	1500 CROWNED ROLLER BRGN
292	1	ZC-1909	1500 SHAFT BUSHING	298	2	Q-2995-7	1500 O'RING
				298	1	W023-244	SPIROLOX SNAP RING
294	1	AZ-0558	1200 1500 BEARING SHIELD	298	1	W031-0	1200 1500 BEARING SEAL
294	3	J-2909-16	1500 BACK UP RING	298	1	W4-4	GREASE FITTING
294	1	JZ-0558	1500 BEARING SPACER	298	1	W58-40	1200 1500 BALL BEARING
294	1	K-2995-121	1500 O'RING	298	1	ZC-1909	1500 SHAFT BUSHING
294	2	L-0280-K	CHECK VALVE ASSY				
294	2	M-0921	1500 CROWNED ROLLER BRGN	299	1	AZ-0558	1200 1500 BEARING SHIELD
294	2	Q-2995-7	1500 O'RING	299	3	J-2909-16	1500 BACK UP RING
294	1	W023-244	SPIROLOX SNAP RING	299	1	JZ-0558	1500 BEARING SPACER
294	1	W031-0	1200 1500 BEARING SEAL	299	1	K-2995-121	1500 O'RING
294	1	W4-4	GREASE FITTING	299	2	L-0280-K	CHECK VALVE ASSY
294	1	W58-40	1200 1500 BALL BEARING	299	2	M-0921	1500 CROWNED ROLLER BRGN
294	1	ZC-1909	1500 SHAFT BUSHING	299	2	Q-2995-7	1500 O'RING
				299	1	W023-244	SPIROLOX SNAP RING
296	1	AZ-0558	1200 1500 BEARING SHIELD	299	1	W031-0	1200 1500 BEARING SEAL
296	3	J-2909-16	1500 BACK UP RING	299	1	W4-4	GREASE FITTING
296	1	JZ-0558	1500 BEARING SPACER	299	1	W58-40	1200 1500 BALL BEARING
296	1	K-2995-121	1500 O'RING	299	1	ZC-1909	1500 SHAFT BUSHING
296	2	L-0280-K	CHECK VALVE ASSY				
296	2	M-0921	1500 CROWNED ROLLER BRGN	801	1	AZ-0558	1200 1500 BEARING SHIELD
296	2	Q-2995-7	1500 O'RING	801	3	J-2909-16	1500 BACK UP RING
296	1	W023-244	SPIROLOX SNAP RING	801	1	JZ-0558	1500 BEARING SPACER
296	1	W031-0	1200 1500 BEARING SEAL	801	1	K-2995-121	1500 O'RING
296	1	W4-4	GREASE FITTING	801	2	L-0280-K	CHECK VALVE ASSY
296	1	W58-40	1200 1500 BALL BEARING	801	2	M-0921	1500 CROWNED ROLLER BRGN
296	1	ZC-1909	1500 SHAFT BUSHING	801	2	Q-2995-7	1500 O'RING
				801	1	W0-19	PIPE PLUG/SOC HD 1/8-27 NPT
297	1	AZ-0558	1200 1500 BEARING SHIELD	801	1	W023-244	SPIROLOX SNAP RING
297	1	E-0280-K	1200 1500 3600 CHECK	801	1	W031-0	1200 1500 BEARING SEAL
297	3	J-2909-16	1500 BACK UP RING	801	1	W4-4	GREASE FITTING
297	1	JZ-0558	1500 BEARING SPACER	801	1	W58-40	1200 1500 BALL BEARING
297	1	K-2995-121	1500 O'RING	801	1	ZC-1909	1500 SHAFT BUSHING
297	2	M-0921	1500 CROWNED ROLLER BRGN				

PERMCO MODEL: 1500

SHAFT END COVER SMALL PARTS

CODE	QTY	PART NUMBER	D E S C R I P T I O N	CODE	QTY	PART NUMBER	D E S C R I P T I O N
802	1	AZ-0558	1200 1500 BEARING SHIELD	805	1	W023-244	SPIROLOX SNAP RING
802	3	J-2909-16	1500 BACK UP RING	805	1	W031-0	1200 1500 BEARING SEAL
802	1	JZ-0558	1500 BEARING SPACER	805	1	W4-4	GREASE FITTING
802	1	K-2995-121	1500 O'RING	805	1	W58-40	1200 1500 BALL BEARING
802	2	L-0280-K	CHECK VALVE ASSY	805	1	ZC-1909	1500 SHAFT BUSHING
802	2	M-0921	1500 CROWNED ROLLER BRGN				
802	2	Q-2995-7	1500 O'RING	809	3	J-2909-16	1500 BACK UP RING
802	1	W023-244	SPIROLOX SNAP RING	809	1	K-2995-121	1500 O'RING
802	1	W031-0	1200 1500 BEARING SEAL	809	2	L-0280-K	CHECK VALVE ASSY
802	1	W4-02	GREASE FITTING	809	2	M-0921	1500 CROWNED ROLLER BRGN
802	1	W58-40	1200 1500 BALL BEARING	809	2	Q-2995-7	1500 O'RING
802	1	ZC-1909	1500 SHAFT BUSHING	809	1	U-0558	1500 BEARING SPACER
				809	1	W023-206	SPIROLOX SNAP RING
803	1	AZ-0558	1200 1500 BEARING SHIELD	809	1	W031	1200 1500 BEARING SEAL
803	3	J-2909-16	1500 BACK UP RING	809	1	W4-7	GREASE FITTING
803	1	JZ-0558	1500 BEARING SPACER	809	1	W58-34	1200 BALL BEARING
803	1	K-2995-121	1500 O'RING	809	1	ZC-1909	1500 SHAFT BUSHING
803	2	L-0280-K	CHECK VALVE ASSY	809	1	ZZ-0558	1200 1500 BEARING SHIELD
803	2	M-0921	1500 CROWNED ROLLER BRGN				
803	2	Q-2995-7	1500 O'RING	890	1	AZ-0558	1200 1500 BEARING SHIELD
803	1	W0-1	PIPE PLUG/SQ HD 1/8 NPT	890	3	J-2909-16	1500 BACK UP RING
803	1	W023-244	SPIROLOX SNAP RING	890	1	JZ-0558	1500 BEARING SPACER
803	1	W031-0	1200 1500 BEARING SEAL	890	1	K-2995-121	1500 O'RING
803	1	W4-4	GREASE FITTING	890	2	L-0280-K	CHECK VALVE ASSY
803	1	W58-40	1200 1500 BALL BEARING	890	2	M-0921	1500 CROWNED ROLLER BRGN
803	1	ZC-1909	1500 SHAFT BUSHING	890	2	Q-2995-7	1500 O'RING
				890	1	W023-244	SPIROLOX SNAP RING
804	1	AZ-0558	1200 1500 BEARING SHIELD	890	1	W031-0	1200 1500 BEARING SEAL
804	3	J-2909-16	1500 BACK UP RING	890	1	W4-4	GREASE FITTING
804	1	JZ-0558	1500 BEARING SPACER	890	1	W58-40	1200 1500 BALL BEARING
804	1	K-2995-121	1500 O'RING	890	1	ZC-1909	1500 SHAFT BUSHING
804	2	L-0280-K	CHECK VALVE ASSY				
804	1	M-0921	1500 CROWNED ROLLER BRGN	891	3	J-2909-16	1500 BACK UP RING
804	2	Q-2995-7	1500 O'RING	891	1	K-2995-121	1500 O'RING
804	1	W023-244	SPIROLOX SNAP RING	891	2	L-0280-K	CHECK VALVE ASSY
804	1	W031-0	1200 1500 BEARING SEAL	891	2	M-0921	1500 CROWNED ROLLER BRGN
804	1	W4-4	GREASE FITTING	891	2	Q-2995-7	1500 O'RING
804	1	W58-40	1200 1500 BALL BEARING	891	1	U-0558	1500 BEARING SPACER
804	1	ZC-1909	1500 SHAFT BUSHING	891	1	W023-206	SPIROLOX SNAP RING
				891	1	W031	1200 1500 BEARING SEAL
805	1	AZ-0558	1200 1500 BEARING SHIELD	891	1	W4-7	GREASE FITTING
805	3	J-2909-16	1500 BACK UP RING	891	1	W58-34	1200 BALL BEARING
805	1	JZ-0558	1500 BEARING SPACER	891	1	ZC-1909	1500 SHAFT BUSHING
805	1	K-2995-121	1500 O'RING	891	1	ZZ-0558	1200 1500 BEARING SHIELD
805	2	L-0280-K	CHECK VALVE ASSY				
805	2	M-0921	1500 CROWNED ROLLER BRGN	892	1	GZ-0558	1500 BEARING SPACER
805	2	Q-2995-7	1500 O'RING	892	1	IZ-0558	1500 BEARING SPACER

PERMCO MODEL: 1500

SHAFT END COVER SMALL PARTS

CODE	QTY	PART NUMBER	D E S C R I P T I O N	CODE	QTY	PART NUMBER	D E S C R I P T I O N
892	3	J-2909-16	1500 BACK UP RING	897	1	ZC-1909	1500 SHAFT BUSHING
892	1	K-2995-121	1500 O'RING				
892	2	L-0280-K	CHECK VALVE ASSY	898	1	AZ-0558	1200 1500 BEARING SHIELD
892	2	M-0921	1500 CROWNED ROLLER BRGN	898	3	J-2909-16	1500 BACK UP RING
892	2	Q-2995-7	1500 O'RING	898	1	JZ-0558	1500 BEARING SPACER
892	1	W096-314	1500 SNAP RING	898	1	K-2995-121	1500 O'RING
892	1	W4-4	GREASE FITTING	898	2	L-0280-K	CHECK VALVE ASSY
892	1	W58-49	1500 BALL BEARING	898	2	M-0921	1500 CROWNED ROLLER BRGN
892	1	ZC-1909	1500 SHAFT BUSHING	898	2	Q-2995-7	1500 O'RING
				898	1	W023-244	SPIROLOX SNAP RING
894	1	AZ-0558	1200 1500 BEARING SHIELD	898	1	W031-0	1200 1500 BEARING SEAL
894	3	J-2909-16	1500 BACK UP RING	898	1	W4-4	GREASE FITTING
894	1	JZ-0558	1500 BEARING SPACER	898	1	W58-40	1200 1500 BALL BEARING
894	1	K-2995-121	1500 O'RING	898	1	ZC-1909	1500 SHAFT BUSHING
894	2	L-0280-K	CHECK VALVE ASSY				
894	2	M-0921	1500 CROWNED ROLLER BRGN	899	1	AZ-0558	1200 1500 BEARING SHIELD
894	2	Q-2995-7	1500 O'RING	899	3	J-2909-16	1500 BACK UP RING
894	1	W023-244	SPIROLOX SNAP RING	899	1	JZ-0558	1500 BEARING SPACER
894	1	W031-0	1200 1500 BEARING SEAL	899	1	K-2995-121	1500 O'RING
894	1	W4-4	GREASE FITTING	899	2	L-0280-K	CHECK VALVE ASSY
894	1	W58-40	1200 1500 BALL BEARING	899	2	M-0921	1500 CROWNED ROLLER BRGN
894	1	ZC-1909	1500 SHAFT BUSHING	899	2	Q-2995-7	1500 O'RING
				899	1	W023-244	SPIROLOX SNAP RING
896	1	AZ-0558	1200 1500 BEARING SHIELD	899	1	W031-0	1200 1500 BEARING SEAL
896	3	J-2909-16	1500 BACK UP RING	899	1	W4-4	GREASE FITTING
896	1	JZ-0558	1500 BEARING SPACER	899	1	W58-40	1200 1500 BALL BEARING
896	1	K-2995-121	1500 O'RING	899	1	ZC-1909	1500 SHAFT BUSHING
896	2	L-0280-K	CHECK VALVE ASSY				
896	2	M-0921	1500 CROWNED ROLLER BRGN				
896	2	Q-2995-7	1500 O'RING				
896	1	W023-244	SPIROLOX SNAP RING				
896	1	W031-0	1200 1500 BEARING SEAL				
896	1	W4-4	GREASE FITTING				
896	1	W58-40	1200 1500 BALL BEARING				
896	1	ZC-1909	1500 SHAFT BUSHING				
897	1	AZ-0558	1200 1500 BEARING SHIELD				
897	2	E-0280-K	1200 1500 3600 CHECK				
897	3	J-2909-16	1500 BACK UP RING				
897	1	JZ-0558	1500 BEARING SPACER				
897	1	K-2995-121	1500 O'RING				
897	2	M-0921	1500 CROWNED ROLLER BRGN				
897	2	Q-2995-7	1500 O'RING				
897	1	W023-244	SPIROLOX SNAP RING				
897	1	W031-0	1200 1500 BEARING SEAL				
897	1	W4-4	GREASE FITTING				
897	1	W58-40	1200 1500 BALL BEARING				

PERMCO MODEL: 1500

Port End Covers

<u>CODE</u>	<u>QTY</u>	<u>PART NUMBER</u>	<u>D E S C R I P T I O N</u>	<u>CODE</u>	<u>QTY</u>	<u>PART NUMBER</u>	<u>D E S C R I P T I O N</u>
AD	1	CZ-0592	BLANK & BLANK SINGLE	ON	1	CZ-0592-43	5/8 ORB & 1/2 ORB SINGLE
AH	1	CZ-0592	BLANK & BLANK MULT	OT	1	CZ-0592-43	5/8 ORB & 1/2 ORB MULT
BD	1	CZ-0592-1	BLANK & 1/2 NPT SINGLE	QD	1	CZ-0592-8	1 NPT & 1/2 NPT SINGLE
BH	1	CZ-0592-1	BLANK & 1/2 NPT MULT	QH	1	CZ-0592-8	1 NPT & 1/2 NPT MULT
BN	1	CZ-0592-46	3/4 ORB & BLANK SINGLE	QN	1	CZ-0592-43	1/2 ORB & 5/8 ORB SINGLE
BT	1	CZ-0592-46	3/4 ORB & BLANK MULT	QT	1	CZ-0592-43	1/2 ORB & 5/8 ORB MULT
CD	1	CZ-0592-3	BLANK & 3/4 NPT SINGLE	RD	1	CZ-0592-8	1/2 NPT & 1 NPT SINGLE
CH	1	CZ-0592-3	BLANK & 3/4 NPT MULT	RH	1	CZ-0592-8	1/2 NPT & 1 NPT MULT
CN	1	CZ-0592-46	BLANK & 3/4 ORB SINGLE	RN	1	CZ-0592-44	5/8 ORB & BLANK SINGLE
CT	1	CZ-0592-46	BLANK & 3/4 ORB MULT	RT	1	CZ-0592-44	5/8 ORB & BLANK MULT
ED	1	CZ-0592-1	1/2 NPT & BLANK SINGLE	SD	1	CZ-0592-9	1 NPT & 3/4 NPT SINGLE
EH	1	CZ-0592-1	1/2 NPT & BLANK MULT	SH	1	CZ-0592-9	1 NPT & 3/4 NPT MULT
EN	1	CZ-0592-47	3/4 ORB & 3/4 ORB SINGLE	SN	1	CZ-0592-44	BLANK & 5/8 ORB SINGLE
ET	1	CZ-0592-47	3/4 ORB & 3/4 ORB MULT	ST	1	CZ-0592-44	BLANK & 5/8 ORB MULT
FD	1	CZ-0592-2	1/2 NPT & 1/2 NPT SINGLE	UD	1	CZ-0592-9	3/4 NPT & 1 NPT SINGLE
FH	1	CZ-0592-2	1/2 NPT & 1/2 NPT MULT	UH	1	CZ-0592-9	3/4 NPT & 1 NPT MULT
GD	1	CZ-0592-5	1/2 NPT & 3/4 NPT SINGLE	UN	1	CZ-0592-45	5/8 ORB & 5/8 ORB SINGLE
GH	1	CZ-0592-5	1/2 NPT & 3/4 NPT MULT	UT	1	CZ-0592-45	5/8 ORB & 5/8 ORB MULT
GN	1	CZ-0592-48	1/2 ORB & 3/4 ORB SINGLE	VD	1	CZ-0592-10	3/8 NPT & 3/8 NPT SINGLE
GT	1	CZ-0592-48	1/2 ORB & 3/4 ORB MULT	VH	1	CZ-0592-10	3/8 NPT & 3/8 NPT MULT
ID	1	CZ-0592-3	3/4 NPT & BLANK SINGLE				
IH	1	CZ-0592-3	3/4 NPT & BLANK MULT				
JD	1	CZ-0592-5	3/4 NPT & 1/2 NPT SINGLE				
JH	1	CZ-0592-5	3/4 NPT & 1/2 NPT MULT				
JN	1	CZ-0592-48	3/4 ORB & 1/2 ORB SINGLE				
JT	1	CZ-0592-48	3/4 ORB & 1/2 ORB MULT				
KD	1	CZ-0592-4	3/4 NPT & 3/4 NPT SINGLE				
KH	1	CZ-0592-4	3/4 NPT & 3/4 NPT MULT				
KN	1	CZ-0592-41	1/2 ORB & BLANK SINGLE				
KT	1	CZ-0592-41	1/2 ORB & BLANK MULT				
LD	1	CZ-0592-6	BLANK & 1 NPT SINGLE				
LH	1	CZ-0592-6	BLANK & 1 NPT MULT				
LN	1	CZ-0592-41	BLANK & 1/2 ORB SINGLE				
LT	1	CZ-0592-41	BLANK & 1/2 ORB MULT				
MD	1	CZ-0592-6	1 NPT & BLANK SINGLE				
MH	1	CZ-0592-6	1 NPT & BLANK MULT				
MN	1	CZ-0592-42	1/2 ORB & 1/2 ORB SINGLE				
MT	1	CZ-0592-42	1/2 ORB & 1/2 ORB MULT				
OD	1	CZ-0592-7	1 NPT & 1 NPT SINGLE				
OH	1	CZ-0592-7	1 NPT & 1 NPT MULT				

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PORT END COVER SMALL PARTS

<u>CODE</u>	<u>QTY</u>	<u>PART NUMBER</u>
	2	M-0921
	1	Z-1967-45-2

<u>D E S C R I P T I O N</u>
1500 CROWNED ROLLER BRGN
PERMCO NAME TAG

PERMCO MODEL: 1500

Housings

CODE	QTY	PART NUMBER	DESCRIPTION		CODE	QTY	PART NUMBER	DESCRIPTION	
DB07	1	CZ-0577-07-2	1/2 NPT	& 1/2 NPT	NB10	1	CZ-0577-10-21	BLANK	& 1/2 SF
DB10	1	CZ-0577-10-2	1/2 NPT	& 1/2 NPT	NE10	1	CZ-0577-10-24	BLANK	& 3/4 SF
DB12	1	CZ-0577-12-2	1/2 NPT	& 1/2 NPT	NE12	1	CZ-0577-12-24	BLANK	& 3/4 SF
DB15	1	CZ-0577-15-2	1/2 NPT	& 1/2 NPT	NE15	1	CZ-0577-15-24	BLANK	& 3/4 SF
DB17	1	CZ-0577-17-9	1/2 NPT	& 1/2 NPT	NE17	1	CZ-0577-17-24	BLANK	& 3/4 SF
DE07	1	CZ-0577-07-3	1/2 NPT	& 3/4 NPT	NG12	1	CZ-0577-12-27	BLANK	& 1 SF
DE10	1	CZ-0577-10-3	1/2 NPT	& 3/4 NPT	NG15	1	CZ-0577-15-27	BLANK	& 1 SF
DE12	1	CZ-0577-12-3	1/2 NPT	& 3/4 NPT	NG17	1	CZ-0577-17-27	BLANK	& 1 SF
DE15	1	CZ-0577-15-3	1/2 NPT	& 3/4 NPT	NG20	1	CZ-0577-20-27	BLANK	& 1 SF
DE17	1	CZ-0577-17-10	1/2 NPT	& 3/4 NPT	NI15	1	CZ-0577-15-30	BLANK	& 1 1/4 SF
DO07	1	CZ-0577-07-3	3/4 NPT	& 1/2 NPT	NI17	1	CZ-0577-17-30	BLANK	& 1 1/4 SF
DO10	1	CZ-0577-10-3	3/4 NPT	& 1/2 NPT	NI20	1	CZ-0577-20-30	BLANK	& 1 1/4 SF
DO12	1	CZ-0577-12-3	3/4 NPT	& 1/2 NPT	NO07	1	CZ-0577-07-21	1/2 SF	& BLANK
DO15	1	CZ-0577-15-3	3/4 NPT	& 1/2 NPT	NO10	1	CZ-0577-10-21	1/2 SF	& BLANK
DO17	1	CZ-0577-17-10	3/4 NPT	& 1/2 NPT	NQ10	1	CZ-0577-10-24	3/4 SF	& BLANK
DQ07	1	CZ-0577-07-5	3/4 NPT	& 3/4 NPT	NQ12	1	CZ-0577-12-24	3/4 SF	& BLANK
DQ10	1	CZ-0577-10-5	3/4 NPT	& 3/4 NPT	NQ15	1	CZ-0577-15-24	3/4 SF	& BLANK
DQ12	1	CZ-0577-12-5	3/4 NPT	& 3/4 NPT	NQ17	1	CZ-0577-17-24	3/4 SF	& BLANK
DQ15	1	CZ-0577-15-5	3/4 NPT	& 3/4 NPT	NS12	1	CZ-0577-12-27	1 SF	& BLANK
DQ17	1	CZ-0577-17-2	3/4 NPT	& 3/4 NPT	NS15	1	CZ-0577-15-27	1 SF	& BLANK
DQ20	1	CZ-0577-20-2	3/4 NPT	& 3/4 NPT	NS17	1	CZ-0577-17-27	1 SF	& BLANK
DS12	1	CZ-0577-12-6	3/4 NPT	& 1 NPT	NS20	1	CZ-0577-20-27	1 SF	& BLANK
DS15	1	CZ-0577-15-6	3/4 NPT	& 1 NPT	NU15	1	CZ-0577-15-30	1 1/4 SF	& BLANK
DS17	1	CZ-0577-17-3	3/4 NPT	& 1 NPT	NU17	1	CZ-0577-17-30	1 1/4 SF	& BLANK
DS20	1	CZ-0577-20-3	3/4 NPT	& 1 NPT	NU20	1	CZ-0577-20-30	1 1/4 SF	& BLANK
HI12	1	CZ-0577-12-6	1 NPT	& 3/4 NPT	QI12	1	CZ-0577-12-26	1 SF	& 3/4 SF
HI15	1	CZ-0577-15-6	1 NPT	& 3/4 NPT	QI15	1	CZ-0577-15-26	1 SF	& 3/4 SF
HI17	1	CZ-0577-17-3	1 NPT	& 3/4 NPT	QI17	1	CZ-0577-17-26	1 SF	& 3/4 SF
HI20	1	CZ-0577-20-3	1 NPT	& 3/4 NPT	QK12	1	CZ-0577-12-28	1 SF	& 1 SF
HK12	1	CZ-0577-12-8	1 NPT	& 1 NPT	QK15	1	CZ-0577-15-28	1 SF	& 1 SF
HK15	1	CZ-0577-15-8	1 NPT	& 1 NPT	QK17	1	CZ-0577-17-28	1 SF	& 1 SF
HK17	1	CZ-0577-17-5	1 NPT	& 1 NPT	QK20	1	CZ-0577-20-28	1 SF	& 1 SF
HK20	1	CZ-0577-20-5	1 NPT	& 1 NPT	QL15	1	CZ-0577-15-29	1 SF	& 1 1/4 SF
HL17	1	CZ-0577-17-6	1 NPT	& 1 1/4 NPT	QL17	1	CZ-0577-17-29	1 SF	& 1 1/4 SF
HL20	1	CZ-0577-20-6	1 NPT	& 1 1/4 NPT	QL20	1	CZ-0577-20-29	1 SF	& 1 1/4 SF
HR17	1	CZ-0577-17-6	1 1/4 NPT	& 1 NPT	QR15	1	CZ-0577-15-29	1 1/4 SF	& 1 SF
HR20	1	CZ-0577-20-6	1 1/4 NPT	& 1 NPT	QR17	1	CZ-0577-17-29	1 1/4 SF	& 1 SF
HS17	1	CZ-0577-17-8	1 1/4 NPT	& 1 1/4 NPT	QR20	1	CZ-0577-20-29	1 1/4 SF	& 1 SF
HS20	1	CZ-0577-20-8	1 1/4 NPT	& 1 1/4 NPT	QS15	1	CZ-0577-15-31	1 1/4 SF	& 1 1/4 SF
NB07	1	CZ-0577-07-21	BLANK	& 1/2 SF	QS17	1	CZ-0577-17-31	1 1/4 SF	& 1 1/4 SF

PERMCO MODEL: 1500

Housings

CODE	QTY	PART NUMBER	DESCRIPTION		CODE	QTY	PART NUMBER	DESCRIPTION	
QS20	1	CZ-0577-20-31	1 1/4 SF	& 1 1/4 SF	TS15	1	CZ-0577-15-53	1 ORB	& BLANK
TB07	1	CZ-0577-07-41	BLANK	& 1/2 ORB	TS17	1	CZ-0577-17-53	1 ORB	& BLANK
TB10	1	CZ-0577-10-41	BLANK	& 1/2 ORB	TS20	1	CZ-0577-20-53	1 ORB	& BLANK
TB12	1	CZ-0577-12-41	BLANK	& 1/2 ORB	TU17	1	CZ-0577-17-56	1 1/4 ORB	& BLANK
TB15	1	CZ-0577-15-41	BLANK	& 1/2 ORB	TU20	1	CZ-0577-20-56	1 1/4 ORB	& BLANK
TC10	1	CZ-0577-10-44	BLANK	& 5/8 ORB	UB15	1	CZ-0577-15-52	7/8 ORB	& 1 ORB
TC12	1	CZ-0577-12-44	BLANK	& 5/8 ORB	UB17	1	CZ-0577-17-52	7/8 ORB	& 1 ORB
TC15	1	CZ-0577-15-44	BLANK	& 5/8 ORB	UB20	1	CZ-0577-20-52	7/8 ORB	& 1 ORB
TC17	1	CZ-0577-17-44	BLANK	& 5/8 ORB	UJ15	1	CZ-0577-15-52	1 ORB	& 7/8 ORB
TE10	1	CZ-0577-10-47	BLANK	& 3/4 ORB	UJ17	1	CZ-0577-17-52	1 ORB	& 7/8 ORB
TE12	1	CZ-0577-12-47	BLANK	& 3/4 ORB	UJ20	1	CZ-0577-20-52	1 ORB	& 7/8 ORB
TE15	1	CZ-0577-15-47	BLANK	& 3/4 ORB	UK15	1	CZ-0577-15-54	1 ORB	& 1 ORB
TE17	1	CZ-0577-17-47	BLANK	& 3/4 ORB	UK17	1	CZ-0577-17-54	1 ORB	& 1 ORB
TE20	1	CZ-0577-20-47	BLANK	& 3/4 ORB	UK20	1	CZ-0577-20-54	1 ORB	& 1 ORB
TF12	1	CZ-0577-12-50	BLANK	& 7/8 ORB	UL17	1	CZ-0577-17-55	1 ORB	& 1 1/4 ORB
TF15	1	CZ-0577-15-50	BLANK	& 7/8 ORB	UL20	1	CZ-0577-20-55	1 ORB	& 1 1/4 ORB
TF17	1	CZ-0577-17-50	BLANK	& 7/8 ORB	UR17	1	CZ-0577-17-55	1 1/4 ORB	& 1 ORB
TF20	1	CZ-0577-20-50	BLANK	& 7/8 ORB	UR20	1	CZ-0577-20-55	1 1/4 ORB	& 1 ORB
TG15	1	CZ-0577-15-53	BLANK	& 1 ORB	US17	1	CZ-0577-17-57	1 1/4 ORB	& 1 1/4 ORB
TG17	1	CZ-0577-17-53	BLANK	& 1 ORB	US20	1	CZ-0577-20-57	1 1/4 ORB	& 1 1/4 ORB
TG20	1	CZ-0577-20-53	BLANK	& 1 ORB	XB07	1	CZ-0577-07-42	1/2 ORB	& 1/2 ORB
TI17	1	CZ-0577-17-56	BLANK	& 1 1/4 ORB	XB10	1	CZ-0577-10-42	1/2 ORB	& 1/2 ORB
TI20	1	CZ-0577-20-56	BLANK	& 1 1/4 ORB	XB12	1	CZ-0577-12-42	1/2 ORB	& 1/2 ORB
TO07	1	CZ-0577-07-41	1/2 ORB	& BLANK	XB15	1	CZ-0577-15-42	1/2 ORB	& 1/2 ORB
TO10	1	CZ-0577-10-41	1/2 ORB	& BLANK	XB17	1	CZ-0577-17-42	1/2 ORB	& 1/2 ORB
TO12	1	CZ-0577-12-41	1/2 ORB	& BLANK	XB20	1	CZ-0577-20-42	1/2 ORB	& 1/2 ORB
TO15	1	CZ-0577-15-41	1/2 ORB	& BLANK	XC10	1	CZ-0577-10-43	1/2 ORB	& 5/8 ORB
TP10	1	CZ-0577-10-44	5/8 ORB	& BLANK	XC12	1	CZ-0577-12-43	1/2 ORB	& 5/8 ORB
TP12	1	CZ-0577-12-44	5/8 ORB	& BLANK	XC15	1	CZ-0577-15-43	1/2 ORB	& 5/8 ORB
TP15	1	CZ-0577-15-44	5/8 ORB	& BLANK	XI10	1	CZ-0577-10-43	5/8 ORB	& 1/2 ORB
TP17	1	CZ-0577-17-44	5/8 ORB	& BLANK	XI12	1	CZ-0577-12-43	5/8 ORB	& 1/2 ORB
TQ10	1	CZ-0577-10-47	3/4 ORB	& BLANK	XI15	1	CZ-0577-15-43	5/8 ORB	& 1/2 ORB
TQ12	1	CZ-0577-12-47	3/4 ORB	& BLANK	XJ07	1	CZ-0577-07-45	5/8 ORB	& 5/8 ORB
TQ15	1	CZ-0577-15-47	3/4 ORB	& BLANK	XJ10	1	CZ-0577-10-45	5/8 ORB	& 5/8 ORB
TQ17	1	CZ-0577-17-47	3/4 ORB	& BLANK	XJ12	1	CZ-0577-12-45	5/8 ORB	& 5/8 ORB
TQ20	1	CZ-0577-20-47	3/4 ORB	& BLANK	XJ15	1	CZ-0577-15-45	5/8 ORB	& 5/8 ORB
TR12	1	CZ-0577-12-50	7/8 ORB	& BLANK	XJ17	1	CZ-0577-17-45	5/8 ORB	& 5/8 ORB
TR15	1	CZ-0577-15-50	7/8 ORB	& BLANK	XJ20	1	CZ-0577-20-45	5/8 ORB	& 5/8 ORB
TR17	1	CZ-0577-17-50	7/8 ORB	& BLANK	XK10	1	CZ-0577-10-46	5/8 ORB	& 3/4 ORB
TR20	1	CZ-0577-20-50	7/8 ORB	& BLANK	XK12	1	CZ-0577-12-46	5/8 ORB	& 3/4 ORB

PERMCO MODEL: 1500

Housings

CODE	QTY	PART NUMBER	D E S C R I P T I O N		CODE	QTY	PART NUMBER	D E S C R I P T I O N	
XK15	1	CZ-0577-15-46	5/8 ORB	& 3/4 ORB	ZA17	1	CZ-0577-17	BLANK	& BLANK
XK17	1	CZ-0577-17-46	5/8 ORB	& 3/4 ORB	ZA20	1	CZ-0577-20	BLANK	& BLANK
XP10	1	CZ-0577-10-46	3/4 ORB	& 5/8 ORB	ZB07	1	CZ-0577-07-1	BLANK	& 1/2 NPT
XP12	1	CZ-0577-12-46	3/4 ORB	& 5/8 ORB	ZB10	1	CZ-0577-10-1	BLANK	& 1/2 NPT
XP15	1	CZ-0577-15-46	3/4 ORB	& 5/8 ORB	ZB12	1	CZ-0577-12-1	BLANK	& 1/2 NPT
XP17	1	CZ-0577-17-46	3/4 ORB	& 5/8 ORB	ZB15	1	CZ-0577-15-1	BLANK	& 1/2 NPT
XQ10	1	CZ-0577-10-48	3/4 ORB	& 3/4 ORB	ZE07	1	CZ-0577-07-4	BLANK	& 3/4 NPT
XQ12	1	CZ-0577-12-48	3/4 ORB	& 3/4 ORB	ZE10	1	CZ-0577-10-4	BLANK	& 3/4 NPT
XQ15	1	CZ-0577-15-48	3/4 ORB	& 3/4 ORB	ZE12	1	CZ-0577-12-4	BLANK	& 3/4 NPT
XQ17	1	CZ-0577-17-48	3/4 ORB	& 3/4 ORB	ZE15	1	CZ-0577-15-4	BLANK	& 3/4 NPT
XQ20	1	CZ-0577-20-48	3/4 ORB	& 3/4 ORB	ZE17	1	CZ-0577-17-1	BLANK	& 3/4 NPT
XR12	1	CZ-0577-12-49	3/4 ORB	& 7/8 ORB	ZE20	1	CZ-0577-20-1	BLANK	& 3/4 NPT
XR15	1	CZ-0577-15-49	3/4 ORB	& 7/8 ORB	ZG12	1	CZ-0577-12-7	BLANK	& 1 NPT
XR17	1	CZ-0577-17-49	3/4 ORB	& 7/8 ORB	ZG15	1	CZ-0577-15-7	BLANK	& 1 NPT
XR20	1	CZ-0577-20-49	3/4 ORB	& 7/8 ORB	ZG17	1	CZ-0577-17-4	BLANK	& 1 NPT
XW12	1	CZ-0577-12-49	7/8 ORB	& 3/4 ORB	ZG20	1	CZ-0577-20-4	BLANK	& 1 NPT
XW15	1	CZ-0577-15-49	7/8 ORB	& 3/4 ORB	ZI17	1	CZ-0577-17-7	BLANK	& 1 1/4 NPT
XW17	1	CZ-0577-17-49	7/8 ORB	& 3/4 ORB	ZI20	1	CZ-0577-20-7	BLANK	& 1 1/4 NPT
XW20	1	CZ-0577-20-49	7/8 ORB	& 3/4 ORB	ZO07	1	CZ-0577-07-1	1/2 NPT	& BLANK
XY12	1	CZ-0577-12-51	7/8 ORB	& 7/8 ORB	ZO10	1	CZ-0577-10-1	1/2 NPT	& BLANK
XY15	1	CZ-0577-15-51	7/8 ORB	& 7/8 ORB	ZO12	1	CZ-0577-12-1	1/2 NPT	& BLANK
XY17	1	CZ-0577-17-51	7/8 ORB	& 7/8 ORB	ZO15	1	CZ-0577-15-1	1/2 NPT	& BLANK
XY20	1	CZ-0577-20-51	7/8 ORB	& 7/8 ORB	ZQ07	1	CZ-0577-07-4	3/4 NPT	& BLANK
YB07	1	CZ-0577-07-22	1/2 SF	& 1/2 SF	ZQ10	1	CZ-0577-10-4	3/4 NPT	& BLANK
YB10	1	CZ-0577-10-22	1/2 SF	& 1/2 SF	ZQ12	1	CZ-0577-12-4	3/4 NPT	& BLANK
YE10	1	CZ-0577-10-23	1/2 SF	& 3/4 SF	ZQ15	1	CZ-0577-15-4	3/4 NPT	& BLANK
YO10	1	CZ-0577-10-23	3/4 SF	& 1/2 SF	ZQ17	1	CZ-0577-17-1	3/4 NPT	& BLANK
YQ10	1	CZ-0577-10-25	3/4 SF	& 3/4 SF	ZQ20	1	CZ-0577-20-1	3/4 NPT	& BLANK
YQ12	1	CZ-0577-12-25	3/4 SF	& 3/4 SF	ZS12	1	CZ-0577-12-7	1 NPT	& BLANK
YQ15	1	CZ-0577-15-25	3/4 SF	& 3/4 SF	ZS15	1	CZ-0577-15-7	1 NPT	& BLANK
YQ17	1	CZ-0577-17-25	3/4 SF	& 3/4 SF	ZS17	1	CZ-0577-17-4	1 NPT	& BLANK
YS12	1	CZ-0577-12-26	3/4 SF	& 1 SF	ZS20	1	CZ-0577-20-4	1 NPT	& BLANK
YS15	1	CZ-0577-15-26	3/4 SF	& 1 SF	ZU17	1	CZ-0577-17-7	1 1/4 NPT	& BLANK
YS17	1	CZ-0577-17-26	3/4 SF	& 1 SF	ZU20	1	CZ-0577-20-7	1 1/4 NPT	& BLANK
ZA02	1	CZ-0577-02	BLANK	& BLANK					
ZA05	1	CZ-0577-05	BLANK	& BLANK					
ZA07	1	CZ-0577-07	BLANK	& BLANK					
ZA10	1	CZ-0577-10	BLANK	& BLANK					
ZA12	1	CZ-0577-12	BLANK	& BLANK					
ZA15	1	CZ-0577-15	BLANK	& BLANK					

PERMCO MODEL: 1500

HOUSING SMALL PARTS

<u>CODE</u>	<u>QTY</u>	<u>PART NUMBER</u>	<u>D E S C R I P T I O N</u>
	2	T-0947-TC	1500 COATED THRUST PLATE
	2	TA-2995-239	1500 SQUARE GASKET SEAL

PERMCO MODEL: 1500

Gear and Shaft Combinations

<u>CODE</u>	<u>QTY</u>	<u>PART NUMBER</u>	<u>D E S C R I P T I O N</u>
02	1	AZ-0996L-02	1/4 GEAR SET
05	1	AZ-0996L-05	1/2 GEAR SET
07	1	AZ-0996L-07	3/4 GEAR SET
10	1	AZ-0996L-10	1 GEAR SET
12	1	AZ-0996L-12	1 1/4 GEAR SET
15	1	AZ-0996L-15	1 1/2 GEAR SET
17	1	AZ-0996L-17	1 3/4 GEAR SET
20	1	AZ-0996L-20	2 GEAR SET

PERMCO MODEL: 1500

DRIVE SHAFTS OR GEAR/SHAFTS

<u>CODE</u>	<u>QTY</u>	<u>PART NUMBER</u>	<u>D E S C R I P T I O N</u>
00	1	RA-0023-1	1500 SHAFT KEYED 1 DIA
01	* 1	AA-0023	1-1/4 DIA 14 TOOTH OBSOLETE
02	1	IA-0023-1	5/8 DIA W/THD END SAE A
03	1	OA-0023	1500 SHAFT KEYED 5/8 DIA
04	* 1	QA-0023	7/8 DIA W/THD END SAE B
05	1	SA-0023	1500 SHFT 13T 7/8 DIA
06	1	AJ-0023	1500 SHAFT KEYED 3/4 DIA
07	1	RA-0023-2	1500 SHAFT KEYED 1 DIA
08	* 1	AA-0023-1	14T SPLINE SAE C
1	1	EA-0023	1500 SHAFT KEYED 7/8 DIA
10	* 1	AD-0023	7/8 KEYED ** OBSOLETE **
11	1	AS-0023	63/64 DIA KEYED
12	* 1	AT-0023	1 DIA 6 TOOTH
13	* 1	AU-0023	** OBSOLETE **
14	1	AV-0023	1500 SHAFT KEYED 1-1/4 DIA
15	* 1	BT-0023	** OBSOLETE **
16	* 1	BU-0023	** OBSOLETE **
17	1	SA-0023-1	7/8DIA 13T SPLINE
18	* 1	CL-0023	** OBSOLETE **
19	1	AM-0023	1500 SHAFT KEYED 3/4 DIA
2	1	JA-0023	1500 SHAFT 6 TOOTH 1 DIA
20	* 1	LA-0023-1	1500 SHAFT KEYED 7/8 DIA
21	1	CY-0023	1500 SHAFT KEYED 3/4 DIA
22	* 1	DB-0023	** OBSOLETE **
23	* 1	SA-0023-2	** OBSOLETE **
24	* 1	DC-0023	** OBSOLETE **
25	* 1	DJ-0023	** OBSOLETE **
26	1	DO-0023	1500 SHAFT KEYED 7/8 DIA.
29	* 1	CR-0023	** OBSOLETE **
5	* 1	GA-0023	USE CODE 85
6	* 1	IA-0023	** OBSOLETE **
7	1	LA-0023	1500 SHAFT KEYED 7/8 DIA
8	1	MA-0023	1500 SHAFT 6 TOOTH 1 DIA
85	1	YA-0023	1500 SHAFT 9 TOOTH 5/8 DIA

PERMCO MODEL: 1500

DRIVE SHAFT SMALL PARTS

<u>CODE</u>	<u>QTY</u>	<u>PART NUMBER</u>	<u>D E S C R I P T I O N</u>
00	1	W09-06	1/4 X 3/8 X 1 KEY
02	1	W09-34	5/32 X 15/64 X 3/4 KEY
03	1	W09-34	5/32 X 15/64 X 3/4 KEY
04	1	W09-38	1/4 X 3/8 X 7/8 KEY
06	1	W09-14	3/16 X 9/32 X 7/8 KEY
07	1	W09-09	1/4 X 3/8 X 2-1/4 KEY
1	1	W09-06	1/4 X 3/8 X 1 KEY
10	1	W09-37	1/4 X 1/4 X 3/4 KEY
11	1	W09-02	1/4 X 3/8 X 1-1/4 KEY
13	1	W09-23	3/16 X 9/32 X 3/4 KEY
14	1	W09-40	5/16 X 15/32 X 1-3/8 KEY
15	1	W09-19	3/16 X 9/32 X 1-1/4 KEY
18	1	W09-06	1/4 X 3/8 X 1 KEY
19	1	W09-18	1/4 X 3/8 X 2 KEY
20	1	W09-02	1/4 X 3/8 X 1-1/4 KEY
21	1	W09-31	3/16 X 3/16 X 2 KEY
22	* 1	W86-81	SNAP RING
24	1	W09-03	1/4 X 7/16 X 1 KEY
26	1	W09-19	3/16 X 9/32 X 1-1/4 KEY
6	1	W09-1	3/16 X 3/8 X 7/8 WDRF KEY
7	1	W09-19	3/16 X 9/32 X 1-1/4 KEY

PERMCO MODEL: 1500

Bearing Carriers

<u>CODE</u>	<u>QTY</u>	<u>PART NUMBER</u>	<u>D E S C R I P T I O N</u>	<u>CODE</u>	<u>QTY</u>	<u>PART NUMBER</u>	<u>D E S C R I P T I O N</u>
A	1	MZ-0576	BLANK & BLANK	C	1	MZ-0576-1	T & BLANK
AA	1	DZ-0576-76	BLANK & 1 1/4 NPT-T	CA	1	DZ-0576-35	T & 3/4 NPT-B
AB	1	DZ-0576-76	1 1/4 NPT-T & BLANK	CB	1	DZ-0576-35	3/4 NPT-F & T
AC	1	DZ-0576-80	BLANK & 1 1/4 NPT-B	CC	1	DZ-0576-20	T & 3/4 NPT-F
AE	1	DZ-0576-80	1 1/4 NPT-F & BLANK	CE	1	DZ-0576-20	3/4 NPT-B & T
AF	1	DZ-0576-85	BLANK & 1 1/4 NPT-F	CF	1	DZ-0576-78	BLANK & 3/4 NPT-T
AG	1	DZ-0576-85	1 1/4 NPT-B & BLANK	CG	1	DZ-0576-78	3/4 NPT-T & BLANK
AI	1	DZ-0576-4	1 NPT-T & 1 NPT-T	CI	1	DZ-0576-82	BLANK & 3/4 NPT-B
AJ	1	DZ-0576-17	1 NPT-B & 1 NPT-T	CJ	1	DZ-0576-82	3/4 NPT-F & BLANK
AK	1	DZ-0576-17	1 NPT-T & 1 NPT-F	CK	1	DZ-0576-87	BLANK & 3/4 NPT-F
AL	1	DZ-0576-32	1 NPT-F & 1 NPT-T	CL	1	DZ-0576-87	3/4 NPT-B & BLANK
AM	1	DZ-0576-32	1 NPT-T & 1 NPT-B	CM	1	DZ-0576-8	1 NPT-T & 1 1/4 NPT-T
AO	1	DZ-0576-46	1 NPT-B & 1 NPT-B	CO	1	DZ-0576-8	1 1/4 NPT-T & 1 NPT-T
AP	1	DZ-0576-46	1 NPT-F & 1 NPT-F	CP	1	DZ-0576-21	1 NPT-B & 1 1/4 NPT-T
AQ	1	DZ-0576-56	1 NPT-F & 1 NPT-B	CQ	1	DZ-0576-21	1 1/4 NPT-T & 1 NPT-F
AR	1	DZ-0576-66	1 NPT-B & 1 NPT-F	CR	1	DZ-0576-22	1 1/4 NPT-B & 1 NPT-T
AS	1	DZ-0576-5	T & 1 NPT-T	CS	1	DZ-0576-22	1 NPT-T & 1 1/4 NPT-F
AU	1	DZ-0576-5	1 NPT-T & T	CU	1	DZ-0576-36	1 NPT-F & 1 1/4 NPT-T
AV	1	DZ-0576-33	T & 1 NPT-B	CV	1	DZ-0576-36	1 1/4 NPT-T & 1 NPT-B
AW	1	DZ-0576-33	1 NPT-F & T	CW	1	DZ-0576-37	1 1/4 NPT-F & 1 NPT-T
B	1	MZ-0576-1	BLANK & T	E	1	MZ-0576-2	T & T
BA	1	DZ-0576-18	T & 1 NPT-F	EA	1	DZ-0576-37	1 NPT-T & 1 1/4 NPT-B
BB	1	DZ-0576-18	1 NPT-B & T	EB	1	DZ-0576-48	1 NPT-B & 1 1/4 NPT-B
BC	1	DZ-0576-77	BLANK & 1 NPT-T	EC	1	DZ-0576-48	1 1/4 NPT-F & 1 NPT-F
BE	1	DZ-0576-77	1 NPT-T & BLANK	EE	1	DZ-0576-49	1 1/4 NPT-B & 1 NPT-B
BF	1	DZ-0576-81	BLANK & 1 NPT-B	EF	1	DZ-0576-49	1 NPT-F & 1 1/4 NPT-F
BG	1	DZ-0576-81	1 NPT-F & BLANK	EG	1	DZ-0576-58	1 NPT-F & 1 1/4 NPT-B
BI	1	DZ-0576-86	BLANK & 1 NPT-F	EI	1	DZ-0576-58	1 1/4 NPT-F & 1 NPT-B
BJ	1	DZ-0576-86	1 NPT-B & BLANK	EJ	1	DZ-0576-68	1 NPT-B & 1 1/4 NPT-F
BK	1	DZ-0576-6	3/4 NPT-T & 3/4 NPT-T	EK	1	DZ-0576-68	1 1/4 NPT-B & 1 NPT-F
BL	1	DZ-0576-19	3/4 NPT-B & 3/4 NPT-T	EL	1	DZ-0576-9	3/4 NPT-T & 1 NPT-T
BM	1	DZ-0576-19	3/4 NPT-T & 3/4 NPT-F	EM	1	DZ-0576-9	1 NPT-T & 3/4 NPT-T
BO	1	DZ-0576-34	3/4 NPT-F & 3/4 NPT-T	EO	1	DZ-0576-23	3/4 NPT-B & 1 NPT-T
BP	1	DZ-0576-34	3/4 NPT-T & 3/4 NPT-B	EP	1	DZ-0576-23	1 NPT-T & 3/4 NPT-F
BQ	1	DZ-0576-47	3/4 NPT-B & 3/4 NPT-B	EQ	1	DZ-0576-24	1 NPT-B & 3/4 NPT-T
BR	1	DZ-0576-47	3/4 NPT-F & 3/4 NPT-F	ER	1	DZ-0576-24	3/4 NPT-T & 1 NPT-F
BS	1	DZ-0576-57	3/4 NPT-F & 3/4 NPT-B	ES	1	DZ-0576-38	3/4 NPT-F & 1 NPT-T
BU	1	DZ-0576-67	3/4 NPT-B & 3/4 NPT-F	EU	1	DZ-0576-38	1 NPT-T & 3/4 NPT-B
BV	1	DZ-0576-7	T & 3/4 NPT-T	EV	1	DZ-0576-39	1 NPT-F & 3/4 NPT-T
BW	1	DZ-0576-7	3/4 NPT-T & T	EW	1	DZ-0576-39	3/4 NPT-T & 1 NPT-B

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Bearing Carriers

<u>CODE</u>	<u>QTY</u>	<u>PART NUMBER</u>	<u>D E S C R I P T I O N</u>	<u>CODE</u>	<u>QTY</u>	<u>PART NUMBER</u>	<u>D E S C R I P T I O N</u>
F	1	DZ-0576-2	1 1/4 NPT-T & 1 1/4 NPT-T	I	1	DZ-0576-15	1 1/4 NPT-T & 1 1/4 NPT-F
FA	1	DZ-0576-51	3/4 NPT-B & 1 NPT-B	J	1	DZ-0576-30	1 1/4 NPT-F & 1 1/4 NPT-T
FB	1	DZ-0576-51	1 NPT-F & 3/4 NPT-F	JA	1	DZ-0576-104	T & 1 SF-T
FC	1	DZ-0576-50	1 NPT-B & 3/4 NPT-B	JB	1	DZ-0576-104	1 SF-T & T
FE	1	DZ-0576-50	3/4 NPT-F & 1 NPT-F	JC	1	DZ-0576-133	T & 1 SF-B
FF	1	DZ-0576-59	3/4 NPT-F & 1 NPT-B	JE	1	DZ-0576-133	1 SF-F & T
FG	1	DZ-0576-59	1 NPT-F & 3/4 NPT-B	JF	1	DZ-0576-118	T & 1 SF-F
FI	1	DZ-0576-69	3/4 NPT-B & 1 NPT-F	JG	1	DZ-0576-118	1 SF-B & T
FJ	1	DZ-0576-69	1 NPT-B & 3/4 NPT-F	JI	1	DZ-0576-176	BLANK & 1 SF-T
FK	1	DZ-0576-101	1 1/4 SF-T & 1 1/4 SF-T	JJ	1	DZ-0576-176	1SF-T & BLANK
FL	1	DZ-0576-115	1 1/4 SF-B & 1 1/4 SF-T	JK	1	DZ-0576-182	BLANK & 1 SF-B
FM	1	DZ-0576-115	1 1/4 SF-T & 1 1/4 SF-F	JL	1	DZ-0576-182	1SF-F & BLANK
FO	1	DZ-0576-130	1 1/4 SF-F & 1 1/4 SF-T	JM	1	DZ-0576-187	BLANK & 1 SF-F
FP	1	DZ-0576-130	1 1/4 SF-T & 1 1/4 SF-B	JO	1	DZ-0576-187	1 SF-B & BLANK
FQ	1	DZ-0576-145	1 1/4 SF-B & 1 1/4 SF-B	JP	1	DZ-0576-105	3/4 SF-T & 3/4 SF-T
FR	1	DZ-0576-145	1 1/4 SF-F & 1 1/4 SF-F	JQ	1	DZ-0576-119	3/4 SF-B & 3/4 SF-T
FS	1	DZ-0576-155	1 1/4 SF-F & 1 1/4 SF-B	JR	1	DZ-0576-119	3/4 SF-T & 3/4 SF-F
FU	1	DZ-0576-165	1 1/4 SF-B & 1 1/4 SF-F	JS	1	DZ-0576-134	3/4 SF-F & 3/4 SF-T
FV	1	DZ-0576-102	T & 1 1/4 SF-T	JU	1	DZ-0576-134	3/4 SF-T & 3/4 SF-B
FW	1	DZ-0576-102	1 1/4 SF-T & T	JV	1	DZ-0576-147	3/4 SF-B & 3/4 SF-B
G	1	DZ-0576-15	1 1/4 NPT-B & 1 1/4 NPT-T	JW	1	DZ-0576-147	3/4 SF-F & 3/4 SF-F
GA	1	DZ-0576-131	T & 1 1/4 SF-B	K	1	DZ-0576-30	1 1/4 NPT-T & 1 1/4 NPT-B
GB	1	DZ-0576-131	1 1/4 SF-F & T	KA	1	DZ-0576-157	3/4 SF-F & 3/4 SF-B
GC	1	DZ-0576-116	T & 1 1/4 SF-F	KB	1	DZ-0576-167	3/4 SF-B & 3/4 SF-F
GE	1	DZ-0576-116	1 1/4 SF-B & T	KC	1	DZ-0576-106	T & 3/4 SF-T
GF	1	DZ-0576-175	BLANK & 1 1/4 SF-T	KE	1	DZ-0576-106	3/4 SF-T & T
GG	1	DZ-0576-175	1 1/4 SF-T & BLANK	KF	1	DZ-0576-135	T & 3/4 SF-B
GI	1	DZ-0576-180	BLANK & 1 1/4 SF-B	KG	1	DZ-0576-135	3/4 SF-F & T
GJ	1	DZ-0576-180	1 1/4 SF-F & BLANK	KI	1	DZ-0576-120	T & 3/4 SF-F
GK	1	DZ-0576-185	BLANK & 1 1/4 SF-F	KJ	1	DZ-0576-120	3/4 SF-B & T
GL	1	DZ-0576-185	1 1/4 SF-B & BLANK	KK	1	DZ-0576-177	BLANK & 3/4 SF-T
GM	1	DZ-0576-103	1 SF-T & 1 SF-T	KL	1	DZ-0576-177	3/4 SF-T & BLANK
GO	1	DZ-0576-117	1 SF-B & 1 SF-T	KM	1	DZ-0576-181	BLANK & 3/4 SF-B
GP	1	DZ-0576-117	1 SF-T & 1 SF-F	KO	1	DZ-0576-181	3/4 SF-F & BLANK
GQ	1	DZ-0576-132	1 SF-F & 1 SF-T	KP	1	DZ-0576-186	BLANK & 3/4 SF-F
GR	1	DZ-0576-132	1 SF-T & 1 SF-B	KQ	1	DZ-0576-186	3/4 SF-B & BLANK
GS	1	DZ-0576-146	1 SF-B & 1 SF-B	KR	1	DZ-0576-107	1 SF-T & 1 1/4 SF-T
GU	1	DZ-0576-146	1 SF-F & 1 SF-F	KS	1	DZ-0576-107	1 1/4 SF-T & 1 SF-T
GV	1	DZ-0576-156	1 SF-F & 1 SF-B	KU	1	DZ-0576-121	1 SF-B & 1 1/4 SF-T
GW	1	DZ-0576-166	1 SF-B & 1 SF-F	KV	1	DZ-0576-121	1 1/4 SF-T & 1 SF-F

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KW	1	DZ-0576-122	1 1/4 SF-B & 1 SF-T	MW	1	DZ-0576-245	1 ORB-F & 1 ORB-F
L	1	DZ-0576-45	1 1/4 NPT-B & 1 1/4 NPT-B	O	1	DZ-0576-55	1 1/4 NPT-F & 1 1/4 NPT-B
LA	1	DZ-0576-122	1 SF-T & 1 1/4 SF-F	OA	1	DZ-0576-255	1 ORB-F & 1 ORB-B
LB	1	DZ-0576-136	1 SF-F & 1 1/4 SF-T	OB	1	DZ-0576-265	1 ORB-B & 1 ORB-F
LC	1	DZ-0576-136	1 1/4 SF-T & 1 SF-B	OC	1	DZ-0576-202	T & 1 ORB-T
LE	1	DZ-0576-137	1 1/4 SF-F & 1 SF-T	OE	1	DZ-0576-202	1 ORB-T & T
LF	1	DZ-0576-137	1 SF-T & 1 1/4 SF-B	OF	1	DZ-0576-231	T & 1 ORB-B
LG	1	DZ-0576-148	1 SF-B & 1 1/4 SF-B	OG	1	DZ-0576-231	1 ORB-F & T
LI	1	DZ-0576-148	1 1/4 SF-F & 1 SF-F	OI	1	DZ-0576-216	T & 1 ORB-F
LJ	1	DZ-0576-149	1 1/4 SF-B & 1 SF-B	OJ	1	DZ-0576-216	1 ORB-B & T
LK	1	DZ-0576-149	1 SF-F & 1 1/4 SF-F	OK	1	DZ-0576-275	BLANK & 1 ORB-T
LL	1	DZ-0576-158	1 SF-F & 1 1/4 SF-B	OL	1	DZ-0576-275	1 ORB-T & BLANK
LM	1	DZ-0576-158	1 1/4 SF-F & 1 SF-B	OM	1	DZ-0576-280	BLANK & 1 ORB-B
LO	1	DZ-0576-168	1 SF-B & 1 1/4 SF-F	OO	1	DZ-0576-280	1 ORB-F & BLANK
LP	1	DZ-0576-168	1 1/4 SF-B & 1 SF-F	OP	1	DZ-0576-285	BLANK & 1 ORB-F
LQ	1	DZ-0576-108	3/4 SF-T & 1 SF-T	OQ	1	DZ-0576-285	1 ORB-B & BLANK
LR	1	DZ-0576-108	1 SF-T & 3/4 SF-T	OR	1	DZ-0576-203	3/4 ORB-T & 3/4 ORB-T
LS	1	DZ-0576-123	3/4 SF-B & 1 SF-T	OS	1	DZ-0576-217	3/4 ORB-B & 3/4 ORB-T
LU	1	DZ-0576-123	1 SF-T & 3/4 SF-F	OU	1	DZ-0576-217	3/4 ORB-T & 3/4 ORB-F
LV	1	DZ-0576-124	1 SF-B & 3/4 SF-T	OV	1	DZ-0576-232	3/4 ORB-F & 3/4 ORB-T
LW	1	DZ-0576-124	3/4 SF-T & 1SF-F	OW	1	DZ-0576-232	3/4 ORB-T & 3/4 ORB-B
M	1	DZ-0576-45	1 1/4 NPT-F & 1 1/4 NPT-F	P	1	DZ-0576-65	1 1/4 NPT-B & 1 1/4 NPT-F
MA	1	DZ-0576-138	3/4 SF-F & 1 SF-T	PA	1	DZ-0576-246	3/4 ORB-B & 3/4 ORB-B
MB	1	DZ-0576-138	1 SF-T & 3/4 SF-B	PB	1	DZ-0576-246	3/4 ORB-F & 3/4 ORB-F
MC	1	DZ-0576-139	1 SF-F & 3/4 SF-T	PC	1	DZ-0576-256	3/4 ORB-F & 3/4 ORB-B
ME	1	DZ-0576-139	3/4 SF-T & 1 SF-B	PE	1	DZ-0576-266	3/4 ORB-B & 3/4 ORB-F
MF	1	DZ-0576-150	3/4 SF-B & 1 SF-B	PF	1	DZ-0576-204	T & 3/4 ORB-T
MG	1	DZ-0576-150	1 SF-F & 3/4 SF-F	PG	1	DZ-0576-204	3/4 ORB-T & T
MI	1	DZ-0576-151	1 SF-B & 3/4 SF-B	PI	1	DZ-0576-233	T & 3/4 ORB-B
MJ	1	DZ-0576-151	3/4 SF-F & 1 SF-F	PJ	1	DZ-0576-233	3/4 ORB-F & T
MK	1	DZ-0576-159	3/4 SF-F & 1 SF-B	PK	1	DZ-0576-218	T & 3/4 ORB-F
ML	1	DZ-0576-159	1 SF-F & 3/4 SF-B	PL	1	DZ-0576-218	3/4 ORB-B & T
MM	1	DZ-0576-169	3/4 SF-B & 1 SF-F	PM	1	DZ-0576-276	BLANK & 3/4 ORB-T
MO	1	DZ-0576-169	1 SF-B & 3/4 SF-F	PO	1	DZ-0576-276	3/4 ORB-T & BLANK
MP	1	DZ-0576-201	1 ORB-T & 1 ORB-T	PP	1	DZ-0576-281	BLANK & 3/4 ORB-B
MQ	1	DZ-0576-215	1 ORB-B & 1 ORB-T	PQ	1	DZ-0576-281	3/4 ORB-F & BLANK
MR	1	DZ-0576-215	1 ORB-T & 1 ORB-F	PR	1	DZ-0576-286	BLANK & 3/4 ORB-F
MS	1	DZ-0576-230	1 ORB-F & 1 ORB-T	PS	1	DZ-0576-286	3/4 ORB-B & BLANK
MU	1	DZ-0576-230	1 ORB-T & 1 ORB-B	PU	1	DZ-0576-205	3/4 ORB-T & 1 ORB-T
MV	1	DZ-0576-245	1 ORB-B & 1 ORB-B	PV	1	DZ-0576-205	1 ORB-T & 3/4 ORB-T

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<u>CODE</u>	<u>QTY</u>	<u>PART NUMBER</u>	<u>D E S C R I P T I O N</u>	<u>CODE</u>	<u>QTY</u>	<u>PART NUMBER</u>	<u>D E S C R I P T I O N</u>
PW	1	DZ-0576-220	3/4 ORB-B & 1 ORB-T	WR	1	DZ-0576-282	1/2 ORB-F & BLANK
Q	1	DZ-0576-3	T & 1 1/4 NPT-T	WS	1	DZ-0576-287	BLANK & 1/2 ORB-F
R	1	DZ-0576-3	1 1/4 NPT-T & T	WU	1	DZ-0576-287	1/2 ORB-B & BLANK
S	1	DZ-0576-31	T & 1 1/4 NPT-B	WV	1	DZ-0576-40	1 NPT-T & 1/2 NPT-B
SA	1	DZ-0576-220	1 ORB-T & 3/4 ORB-F	WX	1	DZ-0576-25	1/2 NPT-B & 1 NPT-T
SB	1	DZ-0576-219	1 ORB-B & 3/4 ORB-T				
SC	1	DZ-0576-219	3/4 ORB-T & 1 ORB-F				
SE	1	DZ-0576-235	3/4 ORB-F & 1 ORB-T				
SF	1	DZ-0576-235	1 ORB-T & 3/4 ORB-B				
SG	1	DZ-0576-234	1 ORB-F & 3/4 ORB-T				
SI	1	DZ-0576-234	3/4 ORB-T & 1 ORB-B				
SJ	1	DZ-0576-247	3/4 ORB-B & 1 ORB-B				
SK	1	DZ-0576-247	1 ORB-F & 3/4 ORB-F				
SL	1	DZ-0576-248	1 ORB-B & 3/4 ORB-B				
SM	1	DZ-0576-248	3/4 ORB-F & 1 ORB-F				
SO	1	DZ-0576-257	3/4 ORB-F & 1 ORB-B				
SP	1	DZ-0576-257	1 ORB-F & 3/4 ORB-B				
SQ	1	DZ-0576-267	3/4 ORB-B & 1 ORB-F				
SR	1	DZ-0576-267	1 ORB-B & 3/4 ORB-F				
SS	1	DZ-0576-206	1/2 ORB-T & 1/2 ORB-T				
SU	1	DZ-0576-221	1/2 ORB-B & 1/2 ORB-T				
SV	1	DZ-0576-221	1/2 ORB-T & 1/2 ORB-F				
SW	1	DZ-0576-236	1/2 ORB-F & 1/2 ORB-T				
U	1	DZ-0576-31	1 1/4 NPT-F & T				
V	1	DZ-0576-16	T & 1 1/4 NPT-F				
W	1	DZ-0576-16	1 1/4 NPT-B & T				
WA	1	DZ-0576-236	1/2 ORB-T & 1/2 ORB-B				
WB	1	DZ-0576-249	1/2 ORB-B & 1/2 ORB-B				
WC	1	DZ-0576-249	1/2 ORB-F & 1/2 ORB-F				
WE	1	DZ-0576-258	1/2 ORB-F & 1/2 ORB-B				
WF	1	DZ-0576-268	1/2 ORB-B & 1/2 ORB-F				
WG	1	DZ-0576-207	T & 1/2 ORB-T				
WI	1	DZ-0576-207	1/2 ORB-T & T				
WJ	1	DZ-0576-237	T & 1/2 ORB-B				
WK	1	DZ-0576-237	1/2 ORB-F & T				
WL	1	DZ-0576-222	T & 1/2 ORB-F				
WM	1	DZ-0576-222	1/2 ORB-B & T				
WO	1	DZ-0576-277	BLANK & 1/2 ORB-T				
WP	1	DZ-0576-277	1/2 ORB-T & BLANK				
WQ	1	DZ-0576-282	BLANK & 1/2 ORB-B				

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BEARING CARRIER SMALL PARTS

<u>CODE</u>	<u>QTY</u>	<u>PART NUMBER</u>	<u>D E S C R I P T I O N</u>
	2	J-2909-16	1500 BACK UP RING
	4	M-0921	1500 CROWNED ROLLER BRGN
	1	Q-2995-7	1500 O'RING

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Gear and Connecting Shafts

<u>CODE</u>	<u>QTY</u>	<u>PART NUMBER</u>
1	1	AZ-0022

<u>D E S C R I P T I O N</u>
1500 SHAFT CONNECTOR

PLASTIC PLUGS

NPT & BSPP

Port size	Part#
1/8"	#8
1/4"	#11
3/8"	#17
1/2"	#23
3/4"	#30
1"	#42
1-1/4"	#53
1-1/2"	#57
2"	#68
2-1/2"	#78

ORB

1/2"	#23
3/8"	#17
5/8"	#27
3/4"	#35
7/8"	#42
1"	#44
1-1/4"	#53
1-1/2"	#57

SF & metric SF

1/2"	#12
3/4"	B-831-213
1"	B-831-214
1-1/4"	B-831-215
1-1/2"	B-831-216
2"	B-831-217

FASTENERS FOR SINGLE UNITS

Gear Size Qty.	Part #	Bolt Length
1/2"	W1-11	3" 4
3/4"	W1-12	3-1/2" 4
1"	W1-12	3-1/2" 4
1-1/4"	W1-83	4" 4
1-1/2"	W1-83	4" 4
1-3/4"	W1-34	4-1/2" 4
2"	W1-34	4-1/2" 4
Washer #	W033-1	4

Shaft Protectors

SP-1000-1	.656" Dia
SP-1000-2	.587" Dia
SP-1000-3	1" Dia
SP-1000-4	1-1/4" Splined & 1-1/8" Dia
SP-1000-5	1-1/4" Dia Keyed
SP-1000-6	1/2" Dia
SP-1000-7	5/8" Dia
SP-1000-8	3/4" Dia
SP-1000-8	7/8" Dia

Shaft Protector for extended stud

SP-1000-6	2
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FASTENERS FOR DOUBLE UNITS

	Flush	Extended
Dual Section	6.5	8.5
Triple Section	9.75	11.75
Quad Section	13	15

***Add total gear width + above dimension to obtain stud length.

Washer #	W033-1	4
Nut #	W3-40	4

Stud #	Description
ZE -0391-10	1/2-13 x 10"
ZE -0391-12	1/2-13 x 12"
ZE -0391-14	1/2-13 x 14"
ZE -0391-16	1/2-13 x 16"
ZE -0391-20	1/2-13 x 20"
ZE -0391-24	1/2-13 x 24"
ZE-0391-28	1/2-13 x 28"