

# BLACKMER GEAR PUMP

PARTS LIST  
MODELS: G1-222

Keep with Instructions 1902-a00 for Installation, Operation and Maintenance

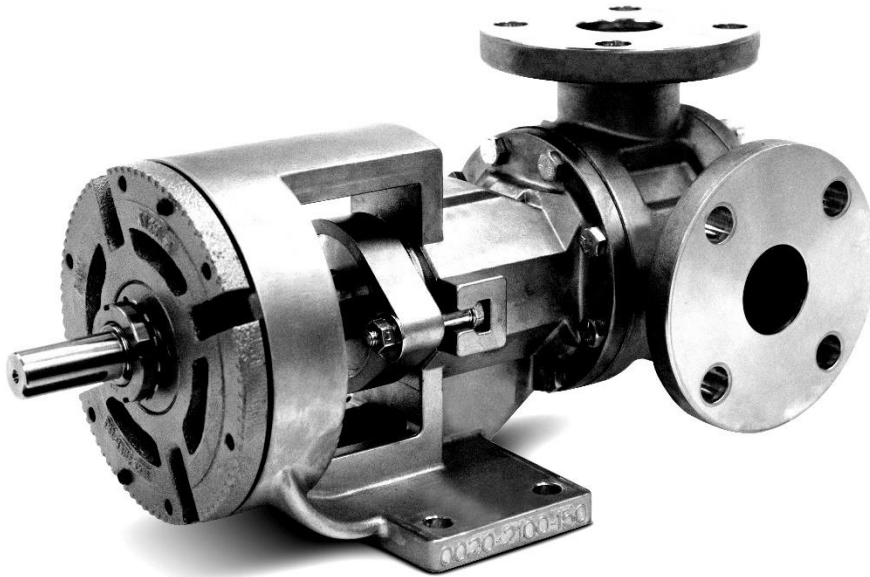
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INSTRUCTIONS NO. 1902-a09

Section  
Effective  
Replaces

1902  
October 2022  
February 2022

# G Series Sealed Internal Gear Pumps



Where Innovation Flows

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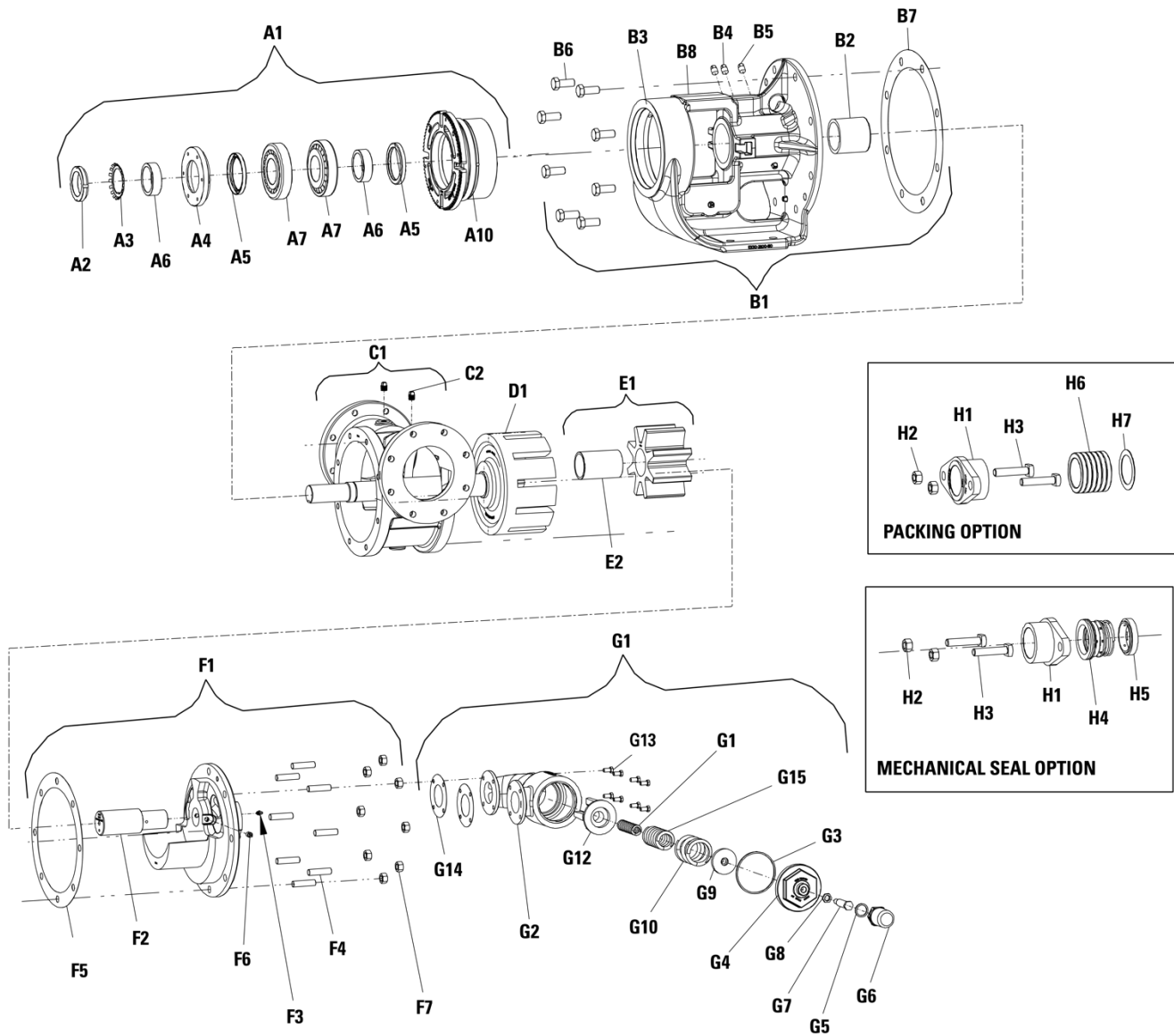
Always read the most current version of this manual before performing any work on or around this pump. The most current version of this manual is freely available on the web at [www.blackmer.com](http://www.blackmer.com)

Blackmer Gear Pumps are specifically configured for your unique application conditions. Those application conditions and the details of the pump configuration were documented during the ordering process. Keep that information available in a safe place, as it may be needed when troubleshooting pump problems or when ordering spare parts or repairs.

Blackmer pumps are covered by one or more of the following patents: U.S. Patent Nos. 7549205, 7137793, 7183683, 8,608,465B2 Australian Patent No. AU2005233534B2; Korean Patent No. 10-2006-7023162; Mexican Patent No. PA/2006/011436, Russian Patent No. 2006138540(041952); China Patent No. ZL 201280031563.6; and other patents pending.

# EXPLODED VIEW AND PARTS LISTING

**G1-222**



## CAST IRON

Item	Description	G1-222	Qty.	Material
A1	HOUSING, BEARING ASSEMBLY (INCLUDES A2 THRU A13)	1330-1000-110	1	CAST IRON
A2	LOCKNUT, SHAFT	1330-1710-230	1	STEEL
A3	LOCKWASHER, SHAFT	1330-1720-230	1	STEEL
A4	ENDCAP, BEARING HOUSING	1330-1200-230	1	STEEL
A5	LIP SEAL, BEARING HOUSING	1330-1900-900	2	BUNA-N
A6	COLLAR, OUTER BEARING SPACER	1330-1300-230	2	STEEL
A7	BEARING	1330-1400-230	2	STEEL
A10	HOUSING, BEARING	1330-1100-110	1	CAST IRON
A11	SET SCREW (3/8"-16 X 3/4"), BEARING HOUSING (NOT SHOWN)	S57U375750WA6L7	2	STEEL
A12	SET SCREW (5/16"-18 X 5/16"), END CAP (NOT SHOWN)	S57U313313WA6L7	2	STEEL
A13	INSERT, BEARING HOUSING (NOT SHOWN)	0020-1790-400	2	NYLON
B1	BRACKET, ASSEMBLY (INCLUDES B2 THRU B8)	1330-2000-110	1	CAST IRON/CARBON GRAPHITE
		1330-2010-110	1	CAST IRON/BRONZE
B2	BUSHING, BRACKET	1330-2800-300	1	CARBON GRAPHITE
		1330-2800-320	1	BRONZE
B3	FITTING, GREASE (1/8" NPT)	GRSF-013NST-230	1	STEEL
B4	PLUG, PIPE (1/4" NPT)	PLUG-025NSH-230	4	STEEL
B5	PLUG, PIPE (1/4" NPT) (USED WITH LUBRICATED BUSHING)	PLUG-025NSH-230	1	STEEL
	FITTING, GREASE PIN (1/4" NPT) (USED WITH NON-LUBRICATED BUSHING)	GRSF-025NST-230	1	STEEL
B6	SCREWS (5/8"-11 X 1-1/2"), BRACKET	S01C625A50WA2A4	8	STEEL
B7	GASKET, BRACKET	1330-6900-950	1	INTERFACE TS-9003
B8	BRACKET	1330-2100-110	1	CAST IRON
C1	CASE, 6" ANSI KIT (INCLUDES B6, B7, C2, F4, F5)	2220-3001-110	1	CAST IRON
C2	PLUG, PIPE (3/8" NPT)	PLUG-038NSH-230	2	STEEL
D1	ROTOR, ASSEMBLY (A/B CLEARANCE)	2220-4000-121	1	DUCTILE IRON/STEEL
	ROTOR, ASSEMBLY (C CLEARANCE)	2220-4002-121	1	DUCTILE IRON/STEEL
	ROTOR, ASSEMBLY (D CLEARANCE)	2220-4003-121	1	DUCTILE IRON/STEEL
E1	GEAR, IDLER ASSEMBLY	2220-5000-121	1	DUCTILE IRON/CARBON GRAPHITE
		2220-5010-121	1	DUCTILE IRON/BRONZE
E2	BUSHING, IDLER	2220-5800-300	1	CARBON GRAPHITE
		2220-5800-320	1	BRONZE
F1	HEAD, ASSEMBLY KIT (F2 THRU F7, G13, G14)	2220-6010-110	1	CAST IRON/STEEL
F2	PIN, IDLER	2220-6200-231	1	HARDENED STEEL
F3	PLUG, PIPE (1/8" NPT) (USED WITH LUBRICATED BUSHING)	PLUG-013NSH-230	1	STEEL
	FITTING, GREASE PIN (1/8" NPT) (USED WITH NON-LUBRICATED BUSHING)	GRSF-013NST-230	1	STEEL
F4	STUD, HEAD, (5/8"-11 X 2-1/2")	T09C625B50WA2A2	8	STEEL
F5	GASKET, HEAD	1330-6900-950	1	INTERFACE TS-9003
F6	PLUG, PIPE (1/4" NPT)	PLUG-025NSH-230	1	STEEL
F7	NUT, HEAD, (5/8"-11)	N04C625562WA2A2	8	STEEL
G1	VALVE, COVER ASSEMBLY (INCLUDES G2, G13 AND G14)	1330-7000-230	1	STAINLESS STEEL/STEEL
	VALVE, ASSEMBLY-50 PSI (INCLUDES G2 THRU G9, G11 THRU G14)	1330-7001-110	1	CAST IRON
	VALVE, ASSEMBLY-80 PSI (INCLUDES G2 THRU G9, G12 THRU G15)	1330-7002-110	1	CAST IRON
	VALVE, ASSEMBLY-130 PSI (INCLUDES G2 THRU G9, G11 THRU G15)	1330-7003-110	1	CAST IRON
	VALVE, ASSEMBLY-200 PSI (INCLUDES G2 THRU G15)	1330-7004-110	1	CAST IRON
G2	VALVE, BODY	1330-7100-110	1	CAST IRON
	VALVE, COVER (NOT SHOWN)	1330-7101-250	2	STAINLESS STEEL
G3	VALVE, GASKET BONNET	1330-7910-951	1	KLINGERSIL® C-4401
G4	VALVE, BONNET	1330-7200-110	1	CAST IRON
G5	VALVE, GASKET CAP	1330-7920-951	1	KLINGERSIL® C-4401
G6	VALVE, CAP	1330-7300-110	1	CAST IRON
G7	VALVE, ADJUSTMENT SCREW	1330-7700-255	1	STAINLESS STEEL
G8	VALVE, LOCK NUT	1330-7710-255	1	STAINLESS STEEL
G9	VALVE, SPRING GUIDE	1330-7500-250	1	STAINLESS STEEL
G10	VALVE, SPRING LARGE (USED WITH 200 PSI VALVES)	1330-7602-250	1	STAINLESS STEEL
G11	VALVE, SPRING SMALL (USED WITH 50, 130, 200 PSI VALVES)	1330-7600-250	1	STAINLESS STEEL
G12	VALVE, POPPET	1330-7400-110	1	CAST IRON
G13	CAPSCREW (3/8"-16 X 3/4"), VALVE	S01C375750WA2A2	8	STEEL
G14	GASKET, VALVE	1330-7900-950	2	INTERFACE TS-9003
G15	VALVE, SPRING MEDIUM (USED WITH 80, 130, 200 PSI VALVES)	1330-7601-250	1	STAINLESS STEEL
H1	GLAND, PACKING (TYPE 1)	1330-8200-150	1	STAINLESS STEEL
	GLAND, PACKING (TYPE 9)	1330-8201-150	1	STAINLESS STEEL

Item	Description	G1-222	Qty.	Material
H2	NUT (5/8"-11), PACKING GLAND	N04C625562CL0A1	2	STAINLESS STEEL
H3	CAPSCREW (5/8"-11), PACKING GLAND	B01C625C00CL0A1	2	STAINLESS STEEL
H4	TYPE 1, COMPONENT SEAL	1330-8000-910	1	FKM
	TYPE 9, COMPONENT SEAL	1330-8001-920	1	PTFE/Ni-RESIST
H5	COLLAR, MECHANICAL SEAL ASSEMBLY	1330-8050-250	1	STAINLESS STEEL
H6	PACKING, KIT (INCLUDES H7)	1330-8100-925K	1	PTFE - GRAPHITE
H7	WASHER, PACKING RETAINING	1330-8150-250	1	STAINLESS STEEL

## STAINLESS STEEL

Item	Description	G1-222	Qty.	Material
A1	HOUSING, BEARING ASSEMBLY (INCLUDES A2 THRU A13)	1330-1000-110	1	CAST IRON
A2	LOCKNUT, SHAFT	1330-1710-230	1	STEEL
A3	LOCKWASHER, SHAFT	1330-1720-230	1	STEEL
A4	ENDCAP, BEARING HOUSING	1330-1200-230	1	STEEL
A5	LIP SEAL, BEARING HOUSING	1330-1900-900	2	BUNA-N
A6	COLLAR, OUTER BEARING SPACER	1330-1300-230	2	STEEL
A7	BEARING	1330-1400-230	2	STEEL
A10	HOUSING, BEARING	1330-1100-110	1	CAST IRON
A11	SET SCREW (3/8"-16 X 3/4"), BEARING HOUSING (NOT SHOWN)	S57U375750WA6L7	2	STEEL
A12	SET SCREW (5/16"-18 X 5/16"), END CAP (NOT SHOWN)	S57U313313WA6L7	2	STEEL
A13	INSERT, BEARING HOUSING (NOT SHOWN)	0020-1790-400	2	NYLON
B1	BRACKET, ASSEMBLY (INCLUDES B2 THRU B8)	1330-2000-150	1	STAINLESS STEEL/CARBON GRAPHITE
B2	BUSHING, BRACKET	1330-2800-300	1	CARBON GRAPHITE
B3	FITTING, GREASE (1/8" NPT)	GRSF-013NST-230	1	STEEL
B4	PLUG, PIPE (1/4" NPT)	PLUG-025NSH-250	4	STAINLESS STEEL
B5	PLUG, PIPE (1/4" NPT)	PLUG-025NSH-250	1	STAINLESS STEEL
B6	SCREWS (5/8"-11 X 1-1/2"), BRACKET	S01C625A50AE2A1	8	STAINLESS STEEL
B7	GASKET, BRACKET	1330-6900-950	1	INTERFACE TS-9003
B8	BRACKET	1330-2100-150	1	STAINLESS STEEL
C1	CASE, 6" ANSI KIT (INCLUDES B6, B7, C2, F4, F5)	2220-3001-150	1	STAINLESS STEEL
C2	PLUG, PIPE (3/8" NPT)	PLUG-038NSH-250	2	STAINLESS STEEL
D1	ROTOR, ASSEMBLY (A CLEARANCE)	2220-4000-176	1	NITRONIC 60/STAINLESS STEEL
	ROTOR, ASSEMBLY (B CLEARANCE)	2220-4001-176	1	NITRONIC 60/STAINLESS STEEL
	ROTOR, ASSEMBLY (C CLEARANCE)	2220-4002-176	1	NITRONIC 60/STAINLESS STEEL
E1	GEAR, IDLER ASSEMBLY	2220-5000-176	1	NITRONIC 60/CARBON GRAPHITE
E2	BUSHING, IDLER	2220-5801-300	1	CARBON GRAPHITE
F1	HEAD, ASSEMBLY KIT (F2, F4, F5, F7, G13, G14)	2220-6010-150	1	STAINLESS STEEL
F2	PIN, IDLER	2220-6200-254	1	STAINLESS STEEL/HARDENED
F4	STUD, HEAD, (5/8"-11 X 2-1/2")	T09C625B50AE2A1	8	STAINLESS STEEL
F5	GASKET, HEAD	1330-6900-950	1	INTERFACE TS-9003
F7	NUT, HEAD, (5/8"-11)	N04C625562AE2A1	8	STAINLESS STEEL
G1	VALVE, COVER ASSEMBLY (INCLUDES G2, G13 AND G14)	1330-7000-250	1	STAINLESS STEEL/STAINLESS STEEL
	VALVE, ASSEMBLY-50 PSI (INCLUDES G2 THRU G9, G11 THRU G14)	1330-7001-150	1	STAINLESS STEEL
	VALVE, ASSEMBLY-80 PSI (INCLUDES G2 THRU G9, G12 THRU G15)	1330-7002-150	1	STAINLESS STEEL
	VALVE, ASSEMBLY-130 PSI (INCLUDES G2 THRU G9, G11 THRU G15)	1330-7003-150	1	STAINLESS STEEL
	VALVE, ASSEMBLY-150 PSI (INCLUDES G2 THRU G15)	1330-7004-150	1	STAINLESS STEEL
G2	VALVE, BODY	1330-7100-150	1	STAINLESS STEEL
	VALVE, COVER (NOT SHOWN)	1330-7101-250	2	STAINLESS STEEL
G3	VALVE, GASKET BONNET	1330-7910-951	1	KLINGERSIL® C-4401
G4	VALVE, BONNET	1330-7200-150	1	STAINLESS STEEL
G5	VALVE, GASKET CAP	1330-7920-951	1	KLINGERSIL® C-4401
G6	VALVE, CAP	1330-7300-150	1	STAINLESS STEEL
G7	VALVE, ADJUSTMENT SCREW	1330-7700-255	1	STAINLESS STEEL
G8	VALVE, LOCK NUT	1330-7710-255	1	STAINLESS STEEL
G9	VALVE, SPRING GUIDE	1330-7500-250	1	STAINLESS STEEL
G10	VALVE, SPRING LARGE (USED WITH 150 PSI VALVES)	1330-7602-250	1	STAINLESS STEEL
G11	VALVE, SPRING SMALL (USED WITH 50, 130, 150 PSI VALVES)	1330-7600-250	1	STAINLESS STEEL
G12	VALVE, POPPET	1330-7400-150	1	STAINLESS STEEL
G13	CAPSCREW (3/8"-16 X 3/4"), VALVE	S01C375750AE2A1	8	STAINLESS STEEL
G14	GASKET, VALVE	1330-7900-950	2	INTERFACE TS-9003
G15	VALVE SPRING MEDIUM (USED WITH 80, 130, 150 PSI VALVES)	1330-7601-250	1	STAINLESS STEEL
H1	GLAND, PACKING (TYPE 1)	1330-8200-150	1	STAINLESS STEEL
	GLAND, PACKING (TYPE 9)	1330-8201-150	1	STAINLESS STEEL
H2	NUT (5/8"-11), PACKING GLAND	N04C625562CL0A1	2	STAINLESS STEEL
H3	CAPSCREW (5/8"-11), PACKING GLAND	B01C625C00CL0A1	2	STAINLESS STEEL
H4	TYPE 9, COMPONENT SEAL	1330-8001-920	1	PTFE/ NI-RESIST
H6	PACKING, KIT (INCLUDES H7)	1330-8100-925K	1	PTFE - GRAPHITE
H7	WASHER, PACKING RETAINING	1330-8150-250	1	STAINLESS STEEL

## CARBON STEEL

Item	Description	G1-222	Qty.	Material
A1	HOUSING, BEARING ASSEMBLY (INCLUDES A2 THRU A13)	1330-1000-110	1	CAST IRON
A2	LOCKNUT, SHAFT	1330-1710-230	1	STEEL
A3	LOCKWASHER, SHAFT	1330-1720-230	1	STEEL
A4	ENDCAP, BEARING HOUSING	1330-1200-230	1	STEEL
A5	LIP SEAL, BEARING HOUSING	1330-1900-900	2	BUNA-N
A6	COLLAR, OUTER BEARING SPACER	1330-1300-230	2	STEEL
A7	BEARING	1330-1400-230	2	STEEL
A10	HOUSING, BEARING	1330-1100-110	1	CAST IRON
A11	SET SCREW (3/8"-16 X 3/4"), BEARING HOUSING (NOT SHOWN)	S57U375750WA6L7	2	STEEL
A12	SET SCREW (5/16"-18 X 5/16"), END CAP (NOT SHOWN)	S57U313313WA6L7	2	STEEL
A13	INSERT, BEARING HOUSING (NOT SHOWN)	0020-1790-400	2	NYLON
B1	BRACKET, ASSEMBLY (INCLUDES B2 THRU B8)	1330-2000-130	1	CARBON STEEL/CARBON GRAPHITE
		1330-2010-130	1	CARBON STEEL/BRONZE
B2	BUSHING, BRACKET	1330-2800-300	1	CARBON GRAPHITE
		1330-2800-320	1	BRONZE
B3	FITTING, GREASE (1/8" NPT)	GRSF-013NST-230	1	STEEL
B4	PLUG, PIPE (1/4" NPT)	PLUG-025NSH-230	4	STEEL
B5	PLUG, PIPE (1/4" NPT) (USED WITH LUBRICATED BUSHING)	PLUG-025NSH-230	1	STEEL
	FITTING, GREASE PIN (1/4" NPT) (USED WITH NON-LUBRICATED BUSHING)	GRSF-025NST-230	1	STEEL
B6	SCREWS (5/8"-11 X 1-1/2"), BRACKET	S01C625A50WA2A4	8	STEEL
B7	GASKET, BRACKET	1330-6900-950	1	INTERFACE TS-9003
B8	BRACKET	1330-2100-130	1	CARBON STEEL
C1	CASE, 6" ANSI KIT (INCLUDES B6, B7, C2, F4, F5)	2220-3001-130	1	CARBON STEEL
C2	PLUG, PIPE (3/8" NPT)	PLUG-038NSH-230	2	STEEL
D1	ROTOR, ASSEMBLY (A/B CLEARANCE)	2220-4000-121	1	DUCTILE IRON/STEEL
	ROTOR, ASSEMBLY (C CLEARANCE)	2220-4002-121	1	DUCTILE IRON/STEEL
	ROTOR, ASSEMBLY (D CLEARANCE)	2220-4003-121	1	DUCTILE IRON/STEEL
E1	GEAR, IDLER ASSEMBLY	2220-5000-121	1	DUCTILE IRON/CARBON GRAPHITE
		2220-5010-121	1	DUCTILE IRON/BRONZE
E2	BUSHING, IDLER	2220-5800-300	1	CARBON GRAPHITE
		2220-5800-320	1	BRONZE
F1	HEAD, ASSEMBLY KIT (F2 THRU F7, G13, G14)	2220-6010-130	1	CARBON STEEL/STEEL
F2	PIN, IDLER	2220-6200-231	1	HARDENED STEEL
F3	PLUG, PIPE (1/8" NPT) (USED WITH LUBRICATED BUSHING)	PLUG-013NSH-230	1	STEEL
	FITTING, GREASE PIN (1/8" NPT) (USED WITH NON-LUBRICATED BUSHING)	GRSF-013NST-230	1	STEEL
F4	STUD, HEAD, (5/8"-11 X 2-1/2")	T09C625B50WA2A2	8	STEEL
F5	GASKET, HEAD	1330-6900-950	1	INTERFACE TS-9003
F6	PLUG, PIPE (1/4" NPT)	PLUG-025NSH-230	1	STEEL
F7	NUT, HEAD, (5/8"-11)	N04C625562WA2A2	8	STEEL
G1	VALVE, COVER ASSEMBLY (INCLUDES G2, G13 AND G14)	1330-7000-230	1	STAINLESS STEEL/STEEL
	VALVE, ASSEMBLY-50 PSI (INCLUDES G2 THRU G9, G11 THRU G14)	1330-7001-130	1	CARBON STEEL
	VALVE, ASSEMBLY-80 PSI (INCLUDES G2 THRU G9, G12 THRU G15)	1330-7002-130	1	CARBON STEEL
	VALVE, ASSEMBLY-130 PSI (INCLUDES G2 THRU G9, G11 THRU G15)	1330-7003-130	1	CARBON STEEL
	VALVE, ASSEMBLY-200 PSI (INCLUDES G2 THRU G15)	1330-7004-130	1	CARBON STEEL
G2	VALVE, BODY	1330-7100-130	1	CARBON STEEL
	VALVE, COVER (NOT SHOWN)	1330-7101-250	2	STAINLESS STEEL
G3	VALVE, GASKET BONNET	1330-7910-951	1	KLINGERSIL® C-4401
G4	VALVE, BONNET	1330-7200-130	1	CARBON STEEL
G5	VALVE, GASKET CAP	1330-7920-951	1	KLINGERSIL® C-4401
G6	VALVE, CAP	1330-7300-110	1	CAST IRON
G7	VALVE, ADJUSTMENT SCREW	1330-7700-255	1	STAINLESS STEEL
G8	VALVE, LOCK NUT	1330-7710-255	1	STAINLESS STEEL
G9	VALVE, SPRING GUIDE	1330-7500-250	1	STAINLESS STEEL
G10	VALVE, SPRING LARGE (USED WITH 200 PSI VALVES)	1330-7602-250	1	STAINLESS STEEL
G11	VALVE, SPRING SMALL (USED WITH 50, 130, 200 PSI VALVES)	1330-7600-250	1	STAINLESS STEEL
G12	VALVE, POPPET	1330-7400-110	1	CAST IRON
G13	CAPSCREW (3/8"-16 X 3/4"), VALVE	S01C375750WA2A2	8	STEEL
G14	GASKET, VALVE	1330-7900-950	2	INTERFACE TS-9003
G15	VALVE, SPRING MEDIUM (USED WITH 80, 130, 200 PSI VALVES)	1330-7601-250	1	STAINLESS STEEL
H1	GLAND, PACKING (TYPE 1)	1330-8200-150	1	STAINLESS STEEL
	GLAND, PACKING (TYPE 9)	1330-8201-150	1	STAINLESS STEEL
H2	NUT (5/8"-11), PACKING GLAND	N04C625562CL0A1	2	STAINLESS STEEL
H3	CAPSCREW (5/8"-11), PACKING GLAND	B01C625C00CL0A1	2	STAINLESS STEEL

Item	Description	G1-222	Qty.	Material
H4	TYPE 1, COMPONENT SEAL	1330-8000-910	1	FKM
	TYPE 9, COMPONENT SEAL	1330-8001-920	1	PTFE/Ni-RESIST
H5	COLLAR, MECHANICAL SEAL ASSEMBLY	1330-8050-250	1	STAINLESS STEEL
H6	PACKING, KIT (INCLUDES H7)	1330-8100-925K	1	PTFE - GRAPHITE
H7	WASHER, PACKING RETAINING	1330-8150-250	1	STAINLESS STEEL









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