

SEAL KITS/STANDARD SEALS

SERIES 2A, 3L, 2H CYLINDERS

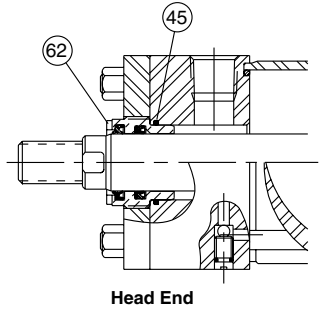
For operating temperature and fluid compatibility see Operating Fluids and Seals page in this section.

Gland and spanner wrenches are available to ease (rod) seal or gland cartridge removal without disassembly of the cylinder.

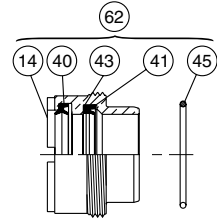
Seal Kits for Class 1 & 2 Service

Rod Dia.	Series 2A Material: Buna-N (Nitrile)		Series 2H & 3L TS 2000 Gland Seal Kits Material: Polyurethane & Buna-N (Nitrile)	
	RG Gland (Sym. 62) Cartridge Kits Contains Symbols 14, 40, 41, 43 & 45	RK Rod Seal Kits Contains Symbols 40, 41, 43 & 45	RG Gland (Sym. 62) Cartridge Kits Contains Symbols 14, 40, 41 & 45	RK Rod Seal Kits Contains Symbols 40, 41 & 45
1/2	RG2AHL0051	RK2AHL0051	RG2HLTS051	RK2HLTS051
5/8	RG2AHL0061	RK2AHL0061	RG2HLTS061	RK2HLTS061
1	RG2AHL0101	RK2AHL0101	RG2HLTS101	RK2HLTS101
1 3/8	RG2AHL0131	RK2AHL0131	RG2HLTS131	RK2HLTS131
1 3/4	RG2AHL0171	RK2AHL0171	RG2HLTS171	RK2HLTS171
2	RG2AHL0201	RK2AHL0201	RG2HLTS201	RK2HLTS201
2 1/2	RG2AHL0251	RK2AHL0251	RG2HLTS251	RK2HLTS251
3	RG2AHL0301	RK2AHL0301	RG2HLTS301	RK2HLTS301
3 1/2	RG2AHL0351	RK2AHL0351	RG2HLTS351	RK2HLTS351
4	RG2AHL0401	RK2AHL0401	RG2HLTS401	RK2HLTS401
4 1/2	RG2AHL0451	RK2AHL0451	RG2HLTS451	RK2HLTS451
*5	RG2AHL0501	RK2AHL0501	RG2HLTS501	RK2HLTS501
*5 1/2	RG2AHL0551	RK2AHL0551	RG2HLTS551	RK2HLTS551

*RG & RK kits listed are not applicable to 10" & 12" bore series 2H cylinders.



Head End



Bore Size	PK Piston Seal Kits Series 2A Only Contains 2 ea. Sym.: 42, 44 & 47	PK Piston Seal Kits Series 2H & 3L Contains 2 ea. Sym.: 42, 44 & 47	PR Piston Ring Kits Series 2H & 3L Contains 2 ea. Sym.: 47 & 48	Hi-Load Piston Seal Kits Series 2H Contains 2 ea. Sym.: 47, 119, 120 & 121
1	PK1002A001	PK102HLL01	PR102H0001	-
1 1/2	PK1502A001	PK152HLL01	PR152H0001	PK152HK001
2	PK2002A001	PK202HLL01	PR202H0001	PK202HK001
2 1/2	PK2502A001	PK252HLL01	PR252H0001	PK252HK001
3 1/4	PK3202A001	PK322HLL01	PR322H0001	PK322HK001
4	PK4002A001	PK402HLL01	PR402H0001	PK402HK001
5	PK5002A001	PK502HLL01	PR502H0001	PK502HK001
6	PK6002A001	PK602HLL01	PR602H0001	PK602HK001
7	PK7002A001	PK702HLL01	PR702H0001	PK702HK001
8	PK8002A001	PK802HLL01	PR802H0001	PK802HK001
10	PK9002A001	PK902HLL01	PR902H0001	PK902HK001
12	PK9202A001	PK922HLL01	PR922H0001	PK922HK001
14	PK9402A001	-	-	-

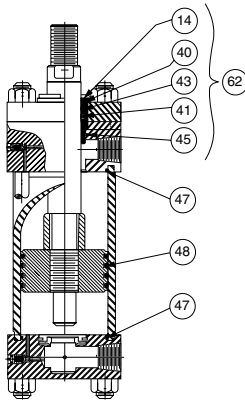
Bore Size	CB Cylinder Body Seal Kits		Tie Rod Torque Specifications*			
	Series 2A Contains 2 ea. Symbol 47	Series 2H & 3L Contains 2 ea. Symbol 47	Series 2A & 3L Cylinder Body Material Steel		Series 2H Cylinder Body Material Steel	
1	CB102HL001	CB102HL001	35 in.-lbs.	41 cm-kg	-	-
1 1/2	CB152HL001	CB152HL001	60 in.-lbs.	69 cm-kg	18 ft.-lbs.	24 N.m
2	CB202HL001	CB202HL001	11 ft.-lbs.	15 N.m	45 ft.-lbs.	61 N.m
2 1/2	CB252HL001	CB252HL001	11 ft.-lbs.	15 N.m	45 ft.-lbs.	61 N.m
3 1/4	CB322A0001	CB322HL001	25 ft.-lbs.	34 N.m	120 ft.-lbs.	163 N.m
4	CB402A0001	CB402HL001	25 ft.-lbs.	34 N.m	131 ft.-lbs.	178 N.m
5	CB502A0001	CB502HL001	60 ft.-lbs.	81 N.m	312 ft.-lbs.	423 N.m
6	CB602A0001	CB602HL001	60 ft.-lbs.	81 N.m	528 ft.-lbs.	716 N.m
7	CB702A0001	CB702HL001	90 ft.-lbs.	122 N.m	800 ft.-lbs.	1085 N.m
8	CB802A0001	CB802HL001	110 ft.-lbs.	149 N.m	1168 ft.-lbs.	1584 N.m
10	CB902A0001	CB902HL001	148 ft.-lbs.	201 N.m	-	-
12	CB922A0001	CB922HL001	172 ft.-lbs.	233 N.m	-	-
14	-	-	275 ft.-lbs.	373 N.m	-	-

*(-0%, +5% tolerance). When assembling the cylinder, be sure to torque the tie rods evenly.

SEAL KITS/GROUP 5

SERIES 2A, 3L, 2H CYLINDERS

Symbol	Description
14	Gland cartridge
40	Gland wiperseal
41	Gland lipseal
42	Piston lipseal
43	Gland back-up washer
44	Piston back-up washer
45	Gland to head o-ring
47	End seal o-ring
48	Piston ring
62	Gland cartridge kit
119	Outer ring
120	Inner ring
121	Wear ring

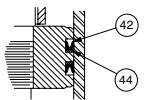


Piston Seal Options

Ring Type Piston

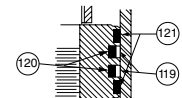
(as shown above)
Supplied on series 2H & 3L hydraulic cylinders.

Lipseal Type Piston



Supplied on series 2A air cylinders and series 2H & 3L hydraulic cylinders.

Hi-Load Type Piston



Optional on series 2H hydraulic cylinders. Not available on series 2A & 3L cylinders.

Seal Kits for Class 5 Service

Material: Fluorocarbon

For operating temperature and fluid compatibility see Cylinder Engineering Section.

Gland and spanner wrenches are available to ease (rod) seal or gland cartridge removal without disassembly of the cylinder.

Rod Dia.	Series 2A, 2H, 3L Cylinders			
	RG Gland (Sym. 62) Cartridge Kits Contains Symbols 14, 40, 41, 43 & 45	RK Rod Seal Kits Contains Symbols 40, 41, 43 & 45	Gland Wrench	Spanner Wrench
1/2	RG2AHL0055	RK2AHL0055	0695900000	0116760000
5/8	RG2AHL0065	RK2AHL0065	0695900000	0116760000
1	RG2AHL0105	RK2AHL0105	0695910000	0116760000
1 3/8	RG2AHL0135	RK2AHL0135	0695920000	0117030000
1 3/4	RG2AHL0175	RK2AHL0175	0695930000	0116770000
2	RG2AHL0205	RK2AHL0205	0695940000	0116770000
2 1/2	RG2AHL0255	RK2AHL0255	0695950000	0116770000
3	RG2AHL0305	RK2AHL0305	0695960000	0116770000
3 1/2	RG2AHL0355	RK2AHL0355	0695970000	0116770000
4	RG2AHL0405	RK2AHL0405	0695980000	0116770000
4 1/2	RG2AHL0455	RK2AHL0455	0838770000	0116780000
*5	RG2AHL0505	RK2AHL0505	0695990000	0116780000
*5 1/2	RG2AHL0555	RK2AHL0555	0696000000	0116780000

*RG & RK kits listed are not applicable to 10" & 12" bore series 2H cylinders. See bulletin 0995-M4.

Bore Size	PK Piston Seal Kits Series 2A Only Contains 2 ea. Sym.: 42, 44 & 47	PK Piston Seal Kits Series 2H & 3L Contains 2 ea. Sym.: 42, 44 & 47	PR Piston Ring Kits Series 2H & 3L Contains 2 ea. Sym.: 47 & 48	Hi-Load Piston Seal Kits Series 2H Contains 2 ea. Sym.: 47, 119, 120 & 121
	1	PK1002A005	PK102HLL05	PR102H0005
1 1/2	PK1502A005	PK152HLL05	PR152H0005	PK152HK005
2	PK2002A005	PK202HLL05	PR202H0005	PK202HK005
2 1/2	PK2502A005	PK252HLL05	PR252H0005	PK252HK005
3 1/4	PK3202A005	PK322HLL05	PR322H0005	PK322HK005
4	PK4002A005	PK402HLL05	PR402H0005	PK402HK005
5	PK5002A005	PK502HLL05	PR502H0005	PK502HK005
6	PK6002A005	PK602HLL05	PR602H0005	PK602HK005
7	PK7002A005	PK702HLL05	PR702H0005	PK702HK005
8	PK8002A005	PK802HLL05	PR802H0005	PK802HK005
10	PK9002A005	PK902HLL05	PR902H0005	PK902HK005
12	PK9202A005	PK922HLL05	PR922H0005	PK922HK005
14	PK9402A005	-	-	-

Bore Size	CB Cylinder Body Seal Kits		Tie Rod Torque Specifications*			
	Series 2A Contains 2 ea. Symbol 47	Series 2H & 3L Contains 2 ea. Symbol 47	Series 2A & 3L Cylinder Body Material Steel		Series 2H Cylinder Body Material Steel	
1	CB102HL005	CB102HL005	35 in.-lbs.	41 cm-kg	-	-
1 1/2	CB152HL005	CB152HL005	60 in.-lbs.	69 cm-kg	18 ft.-lbs.	24 N.m
2	CB202HL005	CB202HL005	11 ft.-lbs.	15 N.m	45 ft.-lbs.	61 N.m
2 1/2	CB252HL005	CB252HL005	11 ft.-lbs.	15 N.m	45 ft.-lbs.	61 N.m
3 1/4		CB322HL005	25 ft.-lbs.	34 N.m	120 ft.-lbs.	163 N.m
4	USE (PK)	CB402HL005	25 ft.-lbs.	34 N.m	131 ft.-lbs.	178 N.m
5	PISTON SEAL KITS FOR THESE SIZES	CB502HL005	60 ft.-lbs.	81 N.m	312 ft.-lbs.	423 N.m
6		CB602HL005	60 ft.-lbs.	81 N.m	528 ft.-lbs.	716 N.m
7		CB702HL005	90 ft.-lbs.	122 N.m	800 ft.-lbs.	1085 N.m
8		CB802HL005	110 ft.-lbs.	149 N.m	1168 ft.-lbs.	1584 N.m
10		CB902HL005	148 ft.-lbs.	201 N.m	-	-
12		CB922HL005	172 ft.-lbs.	233 N.m	-	-
14		-	275 ft.-lbs.	373 N.m	-	-

*(-0%, +5% tolerance). When assembling the cylinder, be sure to torque the tie rods evenly.