STUD-TYPE TRACK ROLLERS
CRSB SERIES
INCH SERIES

B

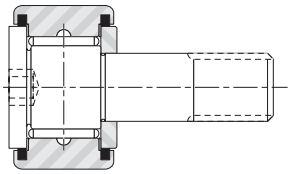
- Non-separable, sealed unit with outer ring, full complement of needle rollers, stud seals, self-lubricating resin internal thrust washers and stud-fastened retaining washer.
- Seals help retain lubricant and exclude foreign matter (CRS Series).
- Hexagonal wrench socket in stud head for mounting.
- Re-lubrication via axially drilled hole through stud with cross-drilled holes in stud raceway and shank.
- Recessed axial hole accepts standard nominal inch drive-type grease lubrication fitting.
- Lubrication fitting plugs furnished to close off unused holes.
- Tolerance limits for outer diameters of stud and outer ring refer to "single mean diameter."
- A close fit between stud and hole required for mounting.
- Bore dimensions given below result in varying fit (0.025 mm tight to 0.013 mm loose [0.0010 in. tight to 0.0005 in. loose]).
- Retaining washer should be firmly backed up by flat housing shoulder (perpendicular to the stud axis).
- Shoulder diameter should be at least same size as minimum clamping diameter listed.
- May be mounted with two thin lock nuts, or nut and lock washer.

Outer Dia.	d_1	D	C	B_2	B_3	G_1	d_4	d_2	d_3	G	Bearing Designation
	+0.025 +0.0010 **-0** -0.0000	**+0** +0.000 **-0.025** -0.001	**+0** +0.000 **-0.13** -0.005	(nom.)		Min.				UNF	
in.	**mm** in.	**mm** in.	**mm** in.	**mm** in.	**mm** in.	**mm** in.	**mm** in.	**mm** in.	**mm** in.	mm in.	
1/2	**4.826** 0.1900	**12.70** 0.500	**8.74** 0.344	**12.70** 0.500	—	**6.35** 0.250	—	—	—	10-32	CRSB-8
1/2	**4.826** 0.1900	**12.70** 0.500	**9.53** 0.375	**15.88** 0.625	—	**6.35** 0.250	—	—	—	10-32	CRSB-8-1
5/8	**6.350** 0.2500	**15.88** 0.625	**10.31** 0.406	**15.88** 0.625	—	**7.92** 0.312	—	—	—	1/4-28	CRSB-10
5/8	**6.350** 0.2500	**15.88** 0.625	**11.13** 0.438	**19.05** 0.750	—	**7.92** 0.312	—	—	—	1/4-28	CRSB-10-1
3/4	**9.525** 0.3750	**19.05** 0.750	**12.70** 0.500	**22.23** 0.875	**6.35** 0.250	**9.53** 0.375	—	**4.78** 0.188	**2.39** 0.094	3/8-24	CRSB-12
7/8	**9.525** 0.3750	**22.23** 0.875	**12.70** 0.500	**22.23** 0.875	**6.35** 0.250	**9.53** 0.375	—	**4.78** 0.188	**2.39** 0.094	3/8-24	CRSB-14
1	**11.113** 0.4375	**25.40** 1.000	**15.88** 0.625	**25.40** 1.000	**6.35** 0.250	**12.70** 0.500	—	**4.78** 0.188	**2.39** 0.094	7/16-20	CRSB-16
1 1/8	**11.113** 0.4375	**28.58** 1.125	**15.88** 0.625	**25.40** 1.000	**6.35** 0.250	**12.70** 0.500	—	**4.78** 0.188	**2.39** 0.094	7/16-20	CRSB-18
1 1/4	**12.700** 0.5000	**31.75** 1.250	**19.05** 0.750	**31.75** 1.250	**7.92** 0.312	**15.88** 0.625	—	**4.78** 0.188	**2.39** 0.094	1/2-20	CRSB-20
1 3/8	**12.700** 0.5000	**34.93** 1.375	**19.05** 0.750	**31.75** 1.250	**7.92** 0.312	**15.88** 0.625	—	**4.78** 0.188	**2.39** 0.094	1/2-20	CRSB-22
1 1/2	**15.875** 0.6250	**38.10** 1.500	**22.23** 0.875	**38.10** 1.500	**9.53** 0.375	**19.05** 0.750	—	**4.78** 0.188	**2.39** 0.094	5/8-18	CRSB-24
1 5/8	**15.875** 0.6250	**41.28** 1.625	**22.23** 0.875	**38.10** 1.500	**9.53** 0.375	**19.05** 0.750	—	**4.78** 0.188	**2.39** 0.094	5/8-18	CRSB-26
1 3/4	**19.050** 0.7500	**44.45** 1.750	**25.40** 1.000	**44.45** 1.750	**11.13** 0.438	**22.23** 0.875	—	**4.78** 0.188	**2.39** 0.094	3/4-16	CRSB-28

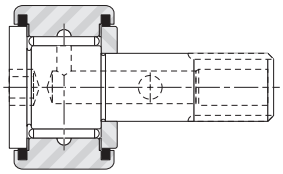
(1) UNS instead of UNF threads.
Furnished with lubrication hole in head end of stud and lubrication fitting installed below bottom of hex wrench socket.

B

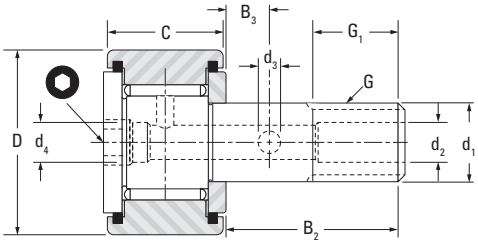
For hexagonal wrench sizes, see page B-254.



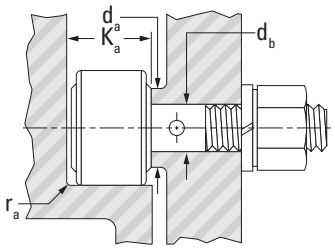
CRSB -8 to -10-1



CRSB -24 to -44



CRSB -12 to -22
CRSB -48 to -64



NOTE

Clamping torque is based on lubricated threads. If threads are dry, the torque values listed below may be doubled.

Load Ratings					Speed Rating Grease	Mounting Dimensions				Clamping Torque	Approx. Wt.
As a Bearing		As a Track Roller				d_b	$r_{as\ max}$	K_a	d_a		
Dynamic	Static	Dynamic		Static		Bore Dia. for Stud **+0.013** +0.0005 **-0** -0.0000	Max.	Min.	Min.		
C	C_o	C_w	$F_{r\ perm}$	$F_{Or\ perm}$							
kN lbf.		**kN** lbf.			min^{-1}	**mm** in.	**mm** in.	**mm** in.	**mm** in.	**N-m** lb-in.	**kg** lbs.
4.44 999	**4.94** 1110	**3.01** 677	**1.04** 233	**2.49** 560	7000	**4.826** 0.1900	**0.25** 0.010	**10.4** 0.41	**7.54** 0.297	**1.69** 15	**0.010** 0.022
4.98 1120	**5.69** 1280	**3.38** 759	**1.21** 272	**2.90** 652	7000	**4.826** 0.1900	**0.25** 0.010	**11.2** 0.44	**7.54** 0.297	**1.69** 15	**0.010** 0.023
6.05 1360	**7.87** 1770	**4.37** 982	**2.26** 508	**5.43** 1220	5500	**6.350** 0.2500	**0.38** 0.015	**11.9** 0.47	**9.12** 0.359	**3.95** 35	**0.019** 0.041
6.58 1480	**8.76** 1970	**4.76** 1070	**2.53** 569	**6.09** 1370	5500	**6.350** 0.2500	**0.38** 0.015	**12.7** 0.50	**9.12** 0.359	**3.95** 35	**0.020** 0.045
10.4 2330	**15.2** 3410	**6.45** 1450	**2.88** 647	**6.89** 1550	3900	**9.525** 0.3750	**0.38** 0.015	**14.2** 0.56	**12.70** 0.500	**10.73** 95	**0.034** 0.076
10.4 2330	**15.2** 3410	**7.56** 1700	**4.80** 1080	**11.5** 2590	3900	**9.525** 0.3750	**0.38** 0.015	**17.5** 0.69	**12.70** 0.500	**10.73** 95	**0.044** 0.097
13.3 2980	**22.3** 5010	**8.94** 2010	**6.05** 1360	**14.5** 3260	3000	**11.113** 0.4375	**0.76** 0.030	**17.5** 0.69	**16.28** 0.641	**28.25** 250	**0.073** 0.161
13.3 2980	**22.3** 5010	**9.88** 2220	**8.67** 1950	**18.3** 4120	3000	**11.113** 0.4375	**0.76** 0.030	**20.6** 0.81	**16.28** 0.641	**28.25** 250	**0.089** 0.197
23.3 5240	**30.3** 6810	**16.1** 3620	**7.43** 1670	**17.8** 4010	2600	**12.700** 0.5000	**0.76** 0.030	**20.6** 0.81	**19.43** 0.765	**39.54** 350	**0.137** 0.301
23.30 5240	**30.3** 6810	**17.7** 3980	**10.5** 2350	**25.1** 5650	2600	**12.700** 0.5000	**0.76** 0.030	**23.9** 0.94	**19.03** 0.765	**39.54** 350	**0.161** 0.354
28.4 6380	**40.8** 9160	**20.1** 4520	**10.9** 2440	**26.0** 5850	2300	**15.875** 0.6250	**0.76** 0.030	**23.9** 0.94	**22.63** 0.891	**73.44** 650	**0.354** 0.528
28.4 6380	**40.8** 9160	**21.5** 4840	**14.1** 3170	**33.8** 7610	2300	**15.875** 0.6250	**0.76** 0.030	**26.9** 1.06	**22.63** 0.891	**73.44** 650	**0.274** 0.605
35.8 8040	**56.94** 12800	**25.9** 5830	**17.7** 3980	**42.5** 9560	1900	**19.050** 0.7500	**1.02** 0.040	**26.9** 1.06	**26.59** 1.047	**141.23** 1250	**0.385** 0.848

Continued on next page.

STUD-TYPE TRACK ROLLERS
CRSB SERIES — continued
INCH SERIES

B

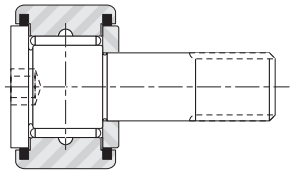
- Non-separable, sealed unit with outer ring, full complement of needle rollers, stud seals, self-lubricating resin internal thrust washers and stud-fastened retaining washer.
- Seals help retain lubricant and exclude foreign matter (CRS Series).
- Hexagonal wrench socket in stud head for mounting.
- Re-lubrication via axially drilled hole through stud with cross-drilled holes in stud raceway and shank.
- Recessed axial hole accepts standard nominal inch drive-type grease lubrication fitting.
- Lubrication fitting plugs furnished to close off unused holes.
- Tolerance limits for outer diameters of stud and outer ring refer to "single mean diameter."
- A close fit between stud and hole required for mounting.
- Bore dimensions given below result in varying fit (0.025 mm tight to 0.013 mm loose [0.0010 in. tight to 0.0005 in. loose]).
- Retaining washer should be firmly backed up by flat housing shoulder (perpendicular to the stud axis).
- Shoulder diameter should be at least same size as minimum clamping diameter listed.
- May be mounted with two thin lock nuts, or nut and lock washer.

Outer Dia.	d_1	D	C	B_2	B_3	G_1	d_4	d_2	d_3	G	Bearing Designation
	+0.025 +0.0010 **-0** -0.0000	**+0** +0.000 **-0.025** -0.001	**+0** +0.000 **-0.13** -0.005	(nom.)		Min.				UNF	
in.	**mm** in.	**mm** in.	**mm** in.	**mm** in.	**mm** in.	**mm** in.	**mm** in.	**mm** in.	**mm** in.	mm in.	
1 7/8	**19.050** 0.7500	**47.63** 1.875	**25.40** 1.000	**44.45** 1.750	**11.13** 0.438	**22.23** 0.875	—	**4.78** 0.188	**2.39** 0.094	3/4-16	CRSB-30
2	**22.225** 0.8750	**50.80** 2.000	**31.75** 1.250	**50.80** 2.000	**12.70** 0.500	**25.40** 1.000	—	**4.78** 0.188	**3.18** 0.125	7/8-14	CRSB-32
2 1/4	**22.225** 0.8750	**57.15** 2.250	**31.75** 1.250	**50.80** 2.000	**12.70** 0.500	**25.40** 1.000	—	**4.78** 0.188	**3.18** 0.125	7/8-14	CRSB-36
2 1/2	**25.400** 1.0000	**63.50** 2.500	**38.10** 1.500	**57.15** 2.250	**14.27** 0.562	**28.58** 1.125	—	**4.78** 0.188	**3.18** 0.125	1-14[1]	CRSB-40
2 3/4	**25.400** 1.0000	**69.85** 2.750	**38.10** 1.500	**57.15** 2.250	**14.27** 0.562	**28.58** 1.125	—	**4.78** 0.188	**3.18** 0.125	1-14[1]	CRSB-44
3	**31.750** 1.2500	**76.20** 3.000	**44.45** 1.750	**63.50** 2.500	**15.88** 0.625	**31.75** 1.250	**6.35** 0.250	**6.35** 0.250	**3.18** 0.125	1 1/4-12	CRSB-48
3 1/4	**31.750** 1.2500	**82.55** 3.250	**44.45** 1.750	**63.50** 2.500	**15.88** 0.625	**31.75** 1.250	**6.35** 0.250	**6.35** 0.250	**3.18** 0.125	1 1/4-12	CRSB-52
3 1/2	**34.925** 1.3750	**88.90** 3.500	**50.80** 2.000	**69.85** 2.750	**17.48** 0.688	**34.93** 1.375	**6.35** 0.250	**6.35** 0.250	**3.18** 0.125	1 3/8-12	CRSB-56
4	**38.100** 1.5000	**101.60** 4.000	**57.15** 2.250	**88.90** 3.500	**19.05** 0.750	**38.10** 1.500	**6.35** 0.250	**6.35** 0.250	**3.18** 0.125	1 1/2-12	CRSB-64
5	**50.80** 2.000	**127.0** 5.000	**69.85** 2.750	**128.57** 5.062	**22.352** 0.88	**65.075** 2.562	1/4 NPT	1/4 NPT	**4.77** 0.188	2-12	CRSB-80
6	**63.50** 2.500	**152.4** 6.000	**82.55** 3.250	**152.4** 6.000	**25.40** 1.00	**76.2** 3.000	1/4 NPT	1/4 NPT	**4.77** 0.188	2 1/2-12	CRSB-96

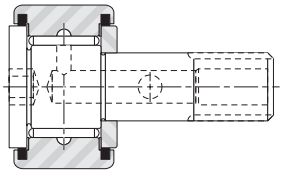
[1] UNS instead of UNF threads.
Furnished with lubrication hole in head end of stud and lubrication fitting installed below bottom of hex wrench socket.

B

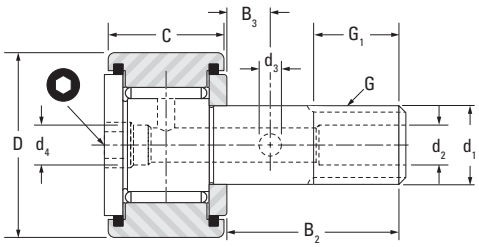
For hexagonal wrench sizes, see page B-254.



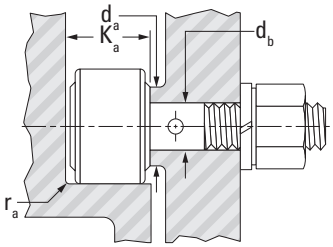
CRSB -8 to -10-1



CRSB -24 to -44



CRSB -12 to -22
CRSB -48 to -64



NOTE

Clamping torque is based on lubricated threads. If threads are dry, the torque values listed below may be doubled.

Load Ratings					Speed Rating Grease	Mounting Dimensions				Clamping Torque	Approx. Wt.
As a Bearing		As a Track Roller				d_b	$r_{as\ max}$	K_a	d_a		
Dynamic	Static	Dynamic		Static		Bore Dia. for Stud **+0.013** +0.0005 **-0** -0.0000	Max.	Min.	Min.		
C	C_o	C_w	$F_{r\ perm}$	$F_{Or\ perm}$							
kN lbf.		**kN** lbf.			min^{-1}	**mm** in.	**mm** in.	**mm** in.	**mm** in.	**N-m** lb-in.	**kg** lbs.
35.8 8040	**56.94** 12800	**27.4** 6150	**22.0** 4940	**49.4** 11100	1900	**19.050** 0.7500	**1.02** 0.040	**33.8** 1.33	**26.59** 1.047	**84.74** 750	**0.430** 0.947
43.5 9770	**76.06** 17100	**31.8** 7160	**26.0** 5850	**60.5** 13600	1700	**22.225** 0.8750	**1.27** 0.050	**33.8** 1.33	**30.56** 1.203	**101.69** 900	**0.621** 1.370
43.5 9770	**76.06** 17100	**34.6** 7770	**36.7** 8250	**71.2** 16000	1700	**22.225** 0.8750	**1.27** 0.050	**40.1** 1.58	**30.56** 1.203	**101.69** 900	**0.757** 1.670
58.7 13200	**118.32** 26600	**44.5** 10000	**51.6** 11600	**101** 22700	1400	**25.400** 1.0000	**2.29** 0.090	**40.1** 1.58	**34.93** 1.375	**152.53** 1350	**1.134** 2.500
58.7 13200	**118.32** 26600	**47.2** 10600	**66.7** 15000	**113** 25500	1400	**25.400** 1.0000	**2.29** 0.090	**44.5** 1.75	**34.93** 1.375	**152.53** 1350	**1.329** 2.930
74.7 16800	**178.82** 40200	**51.6** 11600	**64.0** 14400	**127** 28600	990	**31.750** 1.2500	**2.29** 0.090	**46.5** 1.83	**44.45** 1.750	**231.62** 2050	**1.905** 4.200
74.7 16800	**178.82** 40200	**54.7** 12300	**80.1** 18000	**143** 32100	990	**31.750** 1.2500	**2.29** 0.090	**46.5** 1.83	**44.45** 1.750	**231.62** 2050	**2.182** 4.810
110.8 24900	**226.86** 51000	**82.3** 18500	**89.8** 20200	**187** 42000	950	**34.925** 1.3750	**2.29** 0.090	**52.8** 2.08	**48.82** 1.922	**282.46** 2500	**2.912** 6.420
138.3 31100	**321.16** 72200	**99.2** 22300	**121** 27200	**245** 55000	780	**38.100** 1.5000	**2.29** 0.090	**59.2** 2.33	**57.94** 2.281	**338.95** 3000	**4.291** 9.460
211.0 47.300	**485.0** 109000	**152.0** 34200	**193.0** 43400	**385.0** 86600	620	**50.800** 2.000	**3.18** 0.125	**73.15** 2.88	**73.03** 2.875	**564.9** 5000	**8.89** 19.60
285.0 64100	**576.0** 130000	**209.0** 47100	**238.0** 53600	**473.0** 106000	520	**63500** 2.500	**3.18** 0.125	**85.85** 3.38	**85.73** 3.375	**564.9** 5000	**14.86** 32.76