

随着汽车正向高速度，高可靠性，低能耗方向的发展，冷却水泵也要求向重量轻，体积小，大流量，高转速方向发展，轴连轴承是一种承载能力大，刚性好，旋转精度高，使用寿命长，结构合理，工作可靠的新型轴承。

目前，不但广泛用在汽车冷却水泵，在纺织机械等方面也得到广泛地应用。

一、产品范围与结构说明

系 列	结 构 说 明
WB	双列球水泵轴连轴承：WB 等
WR	—列球—滚子水泵轴连轴承
WB...C	双列球水泵轴连轴承(内部设计变更角接角)
WR...C	—列球—列滚子水泵轴连轴承(内部设计变更四点接触)

二、水泵轴连轴承的标注方法

基 本 代 号				后 置 代 号
系列	轴径 d	套径 D	总长 B	1、大写拉丁字母表示结构相同 2、数字表示同一基本尺寸的顺序号
WB	—	—	—	
WR	—	—	—	

三、材料的选用及热处理

常规的轴连轴承(包括轴，外圈，钢球滚子)选用的钢材为高碳铬轴承钢(GCr15)。因为优质轴承钢的冶炼通过真空脱氧，电磁搅拌，氧化物含量少，能承受较大的接触压应力的同时还能承受较大的高变拉应力。通过热处理后，轴的滚道硬度为58—62HRC。外圈滚道硬度为60—64HRC，外圈道硬度为60—62HRC。钢球和滚子硬度为61—65HRC。当轴，外圈采用渗碳轴承钢制造时，滚道硬度为60—64HRC。

四、游隙

制造时常规的轴连轴承游隙以径向游隙为依据：在无特殊要求，无载荷的情况下，径向游隙为15—35 μ m，用户合理地选择外圈与座孔的配合过盈量是十分重要的，过大的过盈量会使轴承的径向游隙锐减，而破坏轴承，使水泵无法正常工作，实际工作中，除了上述原因外，还需考虑到由于温升引起的膨胀使游隙量减小，故一般过盈量的推荐表如下：

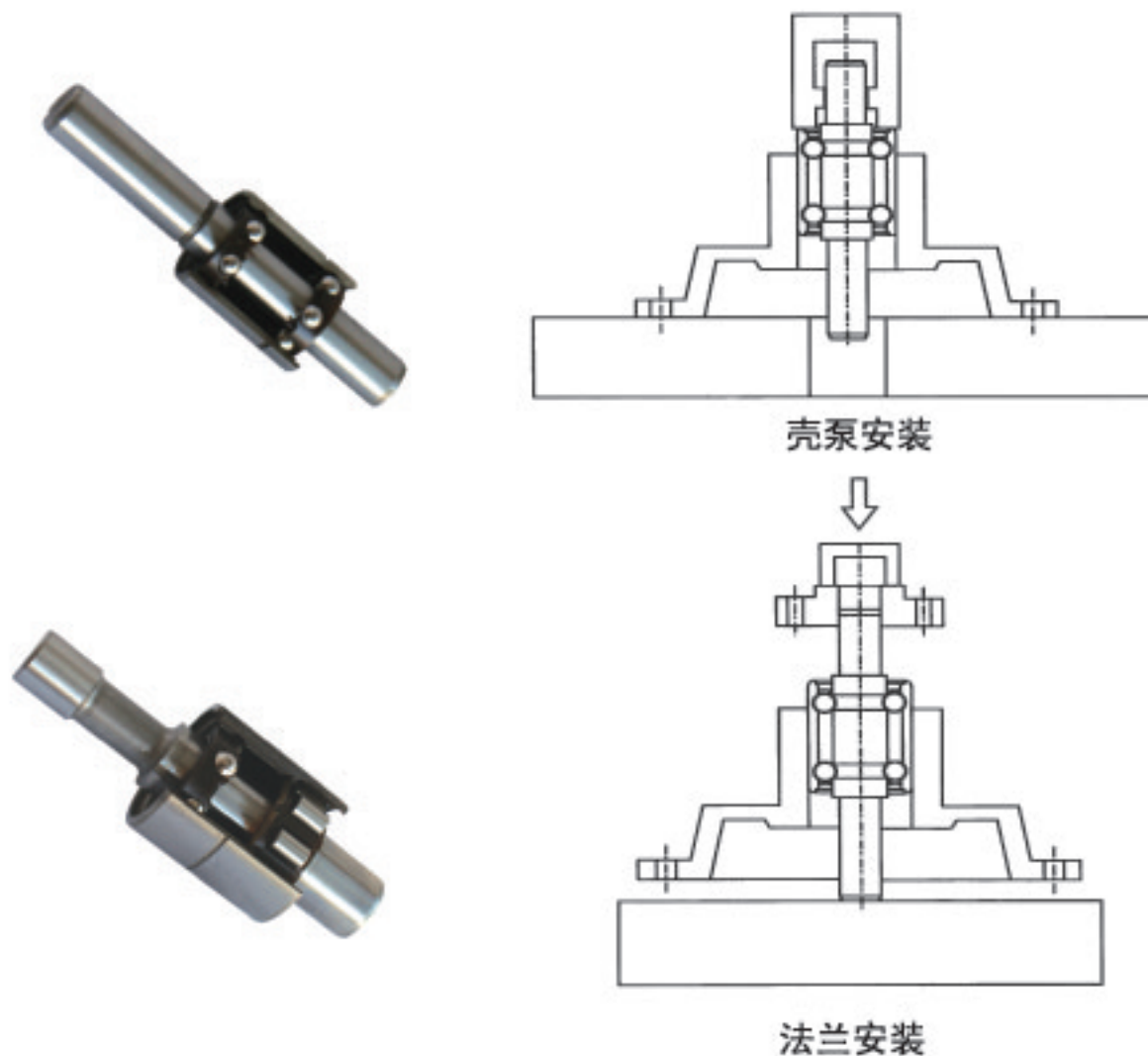
轴承外径 D(mm)	泵壳内径偏差 (μ m)	
	铁壳泵	铝壳泵
30 以下	25—45	35—55
30 以上	32—55	55—76

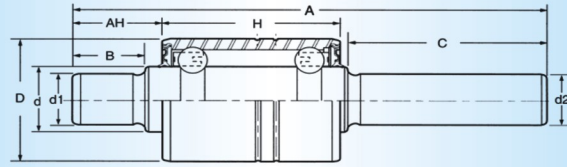
五、润滑

由于水泵轴连轴承工作在高速，高温的条件下，润滑条件直接影响到轴连轴承的使用寿命，应尽量采用滴点较高，稠性较好的进口高级润滑脂，密封圈通常也采用过盈较大的径向接触式密封，以保证轴承长年不失油。

六、轴承的安装

水泵轴连是精密的机械零件，安装方法的正确与否直接影响到轴承的使用寿命，水泵壳体孔圆柱度误差控制在 20um 之间，安装时严禁通过滚动体来传递压装力。同时应避免外冲击力损伤轴承，安装示意如图。





轴承型号 Bearing Designation					外形尺寸 Boundary Dimensions mm									备注 Remarks
VG	NSK	FAG	RHP	KOYO	D	H	A	AH	d	d ₁	d ₂	B	C	
WB1224080					24	27	79.5		12.038					
WB1224082					24	27	82	16.5	12					
WB1224083					24	33.4	82.73	16	12.038					
WB1224085					24	27	84.5	21	12					
WB1224087					24	30	87	28.5	12					
WB1226080					26	30	80		12					
WB1226082					26	30	82	18	12					
WB1226083					26	30	83	16.5	12					
WB1226085					26	27	84.5	21	12					
WB1226089					26	30	89	18	12					
WB1226089A					26	30	88.7		12					
WB1226090					30	39	89.5		12					
WB1226091					26	39	91	17	12					
WB1226092					26	39	92	19	12					
WB1226093					26	39	92.5	16.5	12					
WB1226095	BWF26-14	WS2372		S16140R-5RS	26	39	94.5	21.5	12					
WB1226096					26	39	96	21	12					
WB1226098					26	39	98.4	22.5	12					
WB1226099-1					26	39	99	25	12					
WB1226102					26	39	102	16.5	12					
WB1226104					26	39	103.8	17.5	12					
WB1226106				WPB12106RS	26	39	105.6	16.25	12					
WB1230092					30	38.9	92.5		16	12	12	15.3	35	
WB1230093					30	38.89	92.5	16.5	16	12	12	15.3	35	
WB1230094D					30	38.9	94		16	12	12	31.75	19.5	
WB1230095					30	38.89	95	16.25	16	12	12	14.5	38	
WB1230098					30	38.89	98	16.25	16	12	12	14.5	40.5	
WB1230099					30	38.89	99	16	16	12	12	14.5	41	
WB1230100					30	38.9	99.5	16.3	16	12	12	14.5	41.5	
WB1230101					30	38.89	101	23	15.918	12	12	20	38	
WB1230103					30	38.9	103		16	12	12	14.5	45.2	
WB1230104					30	38.9	104	16.25	16	12	12	14.5	46.5	
WB1230106D					30	38.89	105.5	16.25	16	12	12	14.5	48.4	
WB1230106G					30	38.89	105.3	16.5	15.918	12	12	15	48	
WB1230108					30	38.89	108	20	16	12	12	18.5	47.25	
WB1230110					30	38.89	109.5		15.918		12	14.5	52	

轴承型号 Bearing Designation					外形尺寸 Boundary Dimensions mm										备注 Remarks
VG	NSK	FAG	RHP	KOYO	D	H	A	AH	d	d ₁	d ₂	B	C		
WB1230110A					30	38.89	110		15.918	12	12	15.2	52.5		
WB1230114D					30	38.89	113.6	17	16	12	12	15	55.6		
WB1530085					30	27	85		15.008		12.04		38		
WB1530088					30	36	87.5	16.7	15						
WB1530091					30	38.89	91		15		12		37.5		
WB1530095					30	38.9	94.5		15		12		37.5		
WB1530096			FPS744		30	38.89	99.5	17.87	15.918		12		35.45		
WB1530097					30	38.89	97		15.918		12		36		
WB1530106					30	38.89	106	28	15		12		37.1		
WB1530109					30	52	109		15		12		36		
WB1530110					30	38.89	110	28	15		12		40		
WB1530114					30	38.89	114	24	15						
WB1530116					30	38.89	116	27.2	15						
WB1530119					30	56	119	23.5	15		12				
WB1530132					30	38.89	131.5	36.6	15						
WB1530136					30	42	136	36	15						
WB1530149					30	38.89	148.5		15		12		48		
WB1630068				WPB1606RS	30	38.89	68.5	25	15.918						
WB1630068A					30	38.89	67.74		15.918						
WB1630070					30	38.89	70		16						
WB1630071					30	23	71		15.918		12		32.5		
WB1630073					30	23	72.5		15.918		12		33		
WB1630075-1					30	23	75	14	15.918		12		35		
WB1630075A					30	38.89	75		15.918						
WB1630076					30	23	76		15.918		12		34.5		
WB1630076-1					30	38.89	76	16	15.918		12		33		
WB1630076A					30	28	76.3		15.918						
WB1630076B					30	27	75.95		15.918		12		30.7		
WB1630078					30	23	78	15.5	15.918		12		37.5		
WB1630079					30	30	78.8		15.918		12		34		
WB1630080					30	25	80.3	17	15.918		12		37		
WB1630080A					30	27	80	15.7	15.918						
WB1630081					30	30	81		15.918						
WB1630082					30	27	81.8		15.918		12.04		35.3		
WB1630083					30	25	83.3		15.918						
WB1630084					30	30	84		15.918		12		38		
WB1630085					30	27	84.5	21	15.918		12		34.5		
WB1630087					30	38.89	86.5	13.5	15.918		12		32		
WB1630088					30	36	88.5	16.5	15.918		12		34		
WB1630089					30	36	89		16		12		31		
WB1630090					30	33.38	90.7		15.918		12		38.5		
WB1630091					30	38.9	91	13.6	15.918		12		36		
WB1630092					30	38.89	92.5	25	15.918		12		27.7		
WB1630093					30	38.9	93	19	15.918		12		33		
WB1630094					30	38.9	93.5		15.918		12		35.5		
WB1630095					30	30	95	22.5	15.918		12		40		
WB1630096					30	38.89	96	16.5	15.918		12				
WB1630098		W2385			30	38.89	98		15.918						

轴承型号 Bearing Designation					外形尺寸 Boundary Dimensions mm										备注 Remarks
VG	NSK	FAG	RHP	KOYO	D	H	A	AH	d	d1	d2	B	C		
WB1630099					30	38.89	99.5		15.918		12		41		
WB1630100					30	46	100		15.918		12		34		
WB1630101					30	38.9	101	25	15.918		12		35		
WB1630102					30	38.89	102		15.918						
WB1630103					30	38.89	102.5	22.5	15.918		12		38.7		
WB1630104					30	38.89	104		15.918		12		34		
WB1630105					30	38.89	104.5		15.918		12		42.25		
WB1630106-1					30	38.9	105.8		15.918						
WB1630107					30	39	107		15.918		12		41		
WB1630108					30	38.89	107.5	21.5	15.918		12		43.5		
WB1630109		W2428-1		885111-D	30	38.89	108.74	27.38	15.918						
WB1630110					30	38.9	110	24.3	15.918		12		45		
WB1630111					30	38.89	111	25	15.918						
WB1630112-1					30	39	111.5		15.918		12		41.5		
WB1630113-1					30	38.9	112.5	23.5	15.918						
WB1630114					30	38.89	113.5		15.918						
WB1630115					30	38.89	115		16						
WB1630116					30	38.89	116	26	15.918		12		46		
WB1630117					30	46	117	26.5	15.918		12		42.5		
WB1630117.5					30	38.9	118	30	15.918		12		46		
WB1630118					30	38.89	118	26	15.918						
WB1630119-1					30	46	119		15.918		12		41.5		
WB1630120					30	38.89	120	30	15.918		12		49.15		
WB1630121					30	46	121	20.3	16		12		52.7		
WB1630122					30	38.89	122	34	15.918						
WB1630123					30	38.89	123		15.918						
WB1630124					30	38.9	124	41.8	15.918		12		41		
WB1630125					30	38.89	124.5		15.918						
WB1630126					30	46	125.5	38.5	15.918		12		39		
WB1630127					30	38.9	127	26	16						
WB1630128					30	38.9	128	23	16		12		48		
WB1630129					30	38.89	128.89		15.918						
WB1630130					30	38.89	130		15.918						
WB1630131					30	46	130.5	33	15.918		12		49.5		
WB1630132G					30	38.89	132	40.2	15.918						
WB1630133					30	38.89	133	28	15.918						
WB1630135					30	38.89	134.5	35.5	15.918		12		57		
WB1630136					30	38.89	135.75		15.918		12		49		
WB1630137					30	38.9	137	30	15.918		12		65		
WB1630138					30	57.1	138.46		15.918						
WB1630139					30	39	139.3		15.918						
WB1630142					30	57.15	141.73		15.918						
WB1630143					30	38.89	142.88		15.977						
WB1630144					30	57.1	144	37.5	15.918						
WB1630154					30	38.89	154		15.969						
WB1630159					30	38.89	159		15.918						
WB1630162					30	38.89	161.925		15.969						
WB1630166					30	38.89	166		15.918						
WB1635085					30	30	85	20	15.918		12		33		
WB1635105					30	39	105	25	15.918		12		39		
WB1630141	885458				30	38.89	141.25		15.918						

轴承型号 Bearing Designation					外形尺寸 Boundary Dimensions mm								备注 Remarks	
VG	NSK	FAG	RHP	KOYO	D	H	A	AH	d	d ₁	d ₂	B	C	
WB1635109					35	39	109	20	15.918		12		48	
WB1635111					35	39	110.6	21.5	15.918					
WB1635114					35	46	114	22	15.918		12		44	
WB1635118					35	39	118		15.918		12		46	
WB1635120					35	42	120		16					
WB1635123					35	46	123	23.5	15.918					
WB1635128					35	46	128	27	15.918					
WB1640131					40	46	131		20	16	12	33		
WB1730071A					30	23	71.5		17.2		12		32	
WB1730073A					30	23	73	13.5	17.2		12		34.5	
WB1730074A					30	20	74.5	13.5	17.2		12		39.5	
WB1730075A					30	23	75		17.2		12		36.3	
WB1730076					30	23	75.5		17.208		12		35.7	
WB1730077A					30	30	77		17.2		12		31.5	
WB1730078A					30	23	78	15.5	17.2		12		37	
WB1730079A					30	23	79		17.2		12		38	
WB1730080A					30	23	80		17.2		12		39	
WB1730081A					30	30	80.5		17.2		12		35	
WB1730082A					30	23	82	14	17.2		12		43	
WB1730086					30	30	86		17.2	17	15	19.5	26.5	
WB1730087A					30	30	87		17.2		12		40	
WB1730088A					30	30	88		17.2		12		41.3	
WB1730089					30	38.89	88.5	14	17		15		32	
WB1730092					30	38.89	92	17	17		15		30	
WB1730093A					30	23	92.5		17.2		12		51	
WB1730117					30	38.89	117		17		12		49	
WB1735079B					35	30	79		17.5		12		34.5	
WB1735082					35	30	81.75		17	15.9	15.92	13.6	35	
WB1735085A					35	30	85.6	17.2	17.2		15		35.4	
WB1735086A					35	30	85.5		17.2		12		37	
WB1735088B					35	30	88		17.5		12		39.4	
WB1735090					35	37	90		17		12		34	
WB1735091					35	38.89	91		17		12		34.1	
WB1735092					35	30	92	15.3	17.2		12		45	
WB1735096					35	38.89	96		17	15.9	12	13.5	38.5	
WB1735101B					35	38.89	101		17.5	15.9	12	23.5	34.8	
WB1735103B					35	38.89	103.2		17.5	15.9	12	24	35.5	
WB1735106					35	46	106	17	17	15.9	12	15.5	39.5	
WB1735108					35	38.89	108	21.5	17	15.9	12	20	44.5	
WB1735112					35	39	112		17	15.9	12	28.9	40.9	
WB1735113					35	46	113	30	17	15.9	12	28.5	35.15	
WB1735114.5					35	39	114.5	29	17	15.9	12	28	44	
WB1735117					35	46	117		17		12		38.5	
WB1735119					35	39	119		17	15.9	12	28.5	44	
WB1735119-1					35	38.89	119	26.5	17	15.9	12	25	51	
WB1735120B					35	42	120	28	17.5	16	16	26	48	
WB1735121					35	46	121	30	17	15.9	12	28.5	43.15	
WB1735123					35	54	123		17		12		40.4	
WB1735124					35	54	124	27	17		15.92		41	

轴承型号 Bearing Designation					外形尺寸 Boundary Dimensions mm									备注 Remarks
VG	NSK	FAG	RHP	KOYO	D	H	A	AH	d	d ₁	d ₂	B	C	
WB1735126					35	46	126		17	15.9	12	27	47	
WB1735131B					35	46	130.7		17.5	15.9	12	31.5	49	
WB1735134					35	46	134	29	17					
WB1735137B					35	56	136.5	20.5	17.5		12		57	
WB1736091					36	38.89	91		17		15.92		35.8	
WB1736092					30	38.9	92	17	17.065		15		32	
WB1736093					36	38.89	92.5	17.5	17		15.92		32	
WB1740157					40	49	157		20	17	15		47	
WB1835096					35	38.89	95.8	15.4	18	15.9	12	14	38.2	
WB1835101					35	38.89	100.5	15.1	18	17.2	12	14	44.2	
WB1835106					35	46	106	22	18		12		36	
WB1835108					35	38.89	108		18		12		35.2	
WB1835112					35	46	112		18		12		39.65	
WB1835113					35	46	113	29	18		12		36	
WB1835114					35	46	114	26.5	18		12		37	
WB1835119-1					35	46	119		18		13		42	
WB1835120					35	46	120	22	18		15.92		50	
WB1835122-1					35	38.9	122	28	18	17	12	25.5	53.1	
WB1835123					35	46	123	28.5	18		12		46	
WB1835124					35	46	123.5		18		13		43	
WB1835125					35	46	125	31	18		12		46	
WB1835127					35	46	126.5		18		12		57	
WB1835130					35	54	130	24	18		15.92		50	
WB1835134					35	46	134	30	18		15.92		56	
WB1835136					35	46	136	29	18		12		57	
WB1835138					35	54	138	35	18		15.92		47	
WB1835150					35	45	150		18	15	12		44.5	
WB1835159					35	54	159	36	18	15.9	15.92	13	67	
WB1938086					38.1	38.89	86	13.5	18.961		12		31.5	
WB1938088					38.1	39	88	13.5	18.961		12	13.6	33.5	
WB1938101					38.1	41.3	101.5		18.961		12		44	
WB1938102					38.1	37	101.5	24.5	18.961		12		37	
WB1938106					38.1	41.3	105.5	18	18.961					
WB1938112					38.1	54	112	17	19		15.92		36.5	
WB1938115					38.1	46	115	23	19		12		44	
WB1938116					38.1	41.3	116	30.5	18.961	15.9	12	9	42	
WB1938117					38.1	41.3	117	24	18.961		15.92		48.7	
WB1938119					38.1	41.3	119		18.961		15.92		48	
WB1938121					38.1	54	120.7		19		15.92		38.4	
WB1938122-1					38.1	41.3	122	29.9	18.961		12		46	
WB1938123-1					38.1	54	123	26	18.961	17	12	11	41	
WB1938124					38	54.8	124.4		19	17	16	26	41	
WB1938125					38.1	54	125		19		15.92		44	
WB1938126					38.1	54	126.3	27.5	18.961	15.9		11		
WB1938127					38.1	46	126.6		18.961	17	12	13	41.5	
WB1938128					38.1	54	127.5	31	18.961	15.9	15.92	13.7	39	
WB1938129					38.1	54	128.5		18.961		15.92		41	
WB1938130					38.1	41.3	130		18.961	17	17	28	55	
WB1938133					38.1	54	133	31	18.961	15.9	15.92	12	45	
WB1938134-1					38.1	46	134		18.961		12		63	
WB1938135					38.1	54	134.87		19.012		15.97		41.02	

轴承型号 Bearing Designation					外形尺寸 Boundary Dimensions mm							备注 Remarks		
VG	NSK	FAG	RHP	KOYO	D	H	A	AH	d	d ₁	d ₂	B	C	
WB1938136					38.1	46	136							
WB1938137					38.1	46	137		18.961		12		63	
WB1938138					38.1	46	138		18.961		15.92		53	
WB1938139					38.1	54	138.5	42.5	18.961		15.92		37	
WB1938140					38.1	54	140	33.6	18.961	15.9	15.92	29.2	49.5	
WB1938142					38.1	46	142		18.961	17	17	28	59.3	
WB1938143					38.1	54	143	31.5	18.961	15.9	15.92	12	55	
WB1938144					38.1	54	143.51		18.961	15.9	15.97	12.24	50.55	
WB1938146					38.1	54	146		18.961	15.9	15.92	13.7	52.5	
WB1938148					38.1	54	148	45	18.961	15.9	15.92	42	44.5	
WB1938149					38.1	54	149		19					
WB1938150					38.1	46	150		18.961	17	15.92	30.5	63.5	
WB1938151	F-112088				38.1	54.1	150.5		18.961		15.92		58.3	
WB1938152					38.1	54	151.5		18.961	15.9	15.92	10.6	53.5	
WB1938153					38.1	54	153.42		18.961		15.92		50.55	
WB1938154					38.1	54	154		18.961	15.9	15.92	9.7	58.5	
WB1938156					38.1	54	155.8	36.5	18.961	15.9	15.92	13.7	61.5	
WB1938157					38.1	54	156.59	39.62	19.012		15.97		59.82	
WB1938158					38.1	54	158		18.961	15.9	15.92	14.8	52.8	
WB1938161					38.1	54	161		18.961	15.9	15.92	33.3	55.9	
WB1938165					38.1	54	165	35	18.961	15.9	15.92	15.3	53.5	
WB1938168					38.1	54.1	168.28	50.8	18.961					
WB1938175					38.1	54	174.5	52.5	18.961	15.9	15.92	14	65	
WB1938186					38.1	54	186		19.012					
WB1940088					40	36	88		19		12		34	
WB1940108					40	46	108		19	18	13	15.5	40.5	
WB1940114					40	46	113.5	22	19	15.9	12			
WB1940117					40	46	116.65		19	18	13	24	40	
WB1940119					40	46	119	26.5	19	18	13	24	42	
WB1940121					40	46	121	30	19	15.9	12	28.8	43	
WB1940126A					40	46	126	30	19		12		45	
WB1940127					40	46	126.7		19.05		12.05		44.8	
WB1940131					40	46	131		18.961		15.92		46	
WB1940132-1					40	46	132	30	19	16	16	28.5	54	
WB1940134					40	46	134	31	18.961		15.92		55	
WB1940136					40	46	136.5	6	18.961		12		60	
WB1940137					40	46	137		18.961		12		63	
WB1940141					40	50	141	32.5	19		17		52.5	
WB2036096					36	37	96	17	20	15.9	15.92		36.5	
WB2036118					36	46	118	24	20		15		47	
WB2036119					36	48	118.5	14.5	20		15.92		53	
WB2036142					36	60	142.2	32	20		16		41	
WB2036146					36	46	146	33.5	20	15	15	14.5	63	
WB2036158					36	52	158		20	15	15	4	80	
WB2040118					40	43	117.7	24.8	20		15.92		46.9	
WB2040132					40	46	132	35	20		15.92		48.5	
WB2040143					40	45	143		20	15	15			
WB2040151					40	50	151	48	20	15.9	14.5	43		
WB2040155					40	49	155		20	15	15	36	48.5	
WB2040157					40	46	157		20	15.5	15		47.5	
WB2040161					40	49	161	51	20	15	15	48.5		