

WINNARD

Commercial Vehicle Braking Components

The WinGauge

The WinGauge is a simple measuring tool which will help to determine whether a brake drum is suitable for re-fitting, skimming or replacement.

FEATURES

- Easy to use.
- Measures brake drum diameters 300 to 430mm
- Advises whether the drum suitable for re-machining.
- Advises if the drum is oversize.
- Includes maximum brake drum diameter guidelines

Remove the guess work out of measuring brake drums use the WinGauge and help to make our roads safer.



The WinGauge is currently available to all Winnard distributors **FREE***

Add **WG0001** to your orders while stocks last.

Winnard

Better by design

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www.winnard.co.uk

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HOW TO USE THE WINNARD BRAKE DRUM GAUGE (WinGauge)*

1. Place the worn brake drum on the floor with the stud holes facing down.
2. Place the Wingauge into the drum, keeping the gauge central and level. Measure the diameter at the open end.
3. Read the measurement and check it against the maximum diameter list. You will need to know the drum's original diameter, or the lining reference being fitted, to determine whether the drum can be re-fitted or skimmed. Overleaf you will find a list of popular lining references and drum diameters. Check with your parts supplier or contact our technical department if you are unsure. Vehicle applications, lining references and drum diameters are available through the Winnard web site: www.winnard.co.uk

ADDITIONAL INFORMATION

When a re-line takes place we would always recommend that the brake drum is skimmed and oversize linings machined to the drum's new diameter. This process will provide the optimum performance and life from both the brake linings and drum. Further information on this subject is available at our web site www.winnard.co.uk or by contacting our technical sales department. If you are considering re-using the brake drum then the condition of the braking surface has to be taken into account to ensure that it is suitable. If any of the following conditions are found, we would recommend that an approved brake specialist examine the drum to determine whether it can be recovered.

SKIMMING CONDITIONS

1. SCORING

This is a condition where the braking surface has worn unevenly, usually the result of contamination i.e road grit. Depending upon the degree of wear this condition could be recovered through skimming.

1. HEAT CRAZING

Heat crazing is a condition where the surface of the braking path is covered with fine hairline cracks. These cracks are a normal condition of braking, the result of heating and cooling of the braking surface. As long as these cracks are not too deep, less than 1mm, the drum could be recovered by skimming.

1. BELL MOUTHING

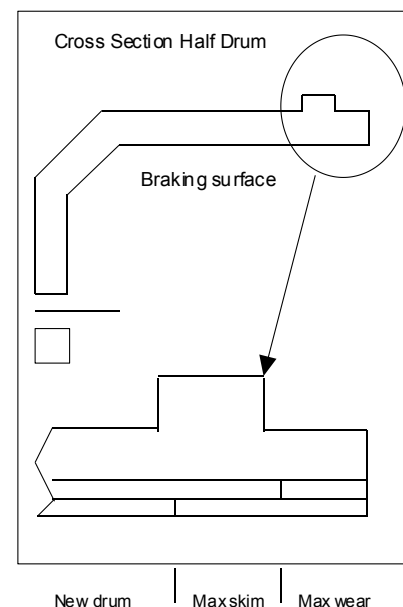
This is a condition where the braking surface has worn to a greater extent at the open end of the drum than at the inner face adjacent to the hub. This can indicate worn anchor pins, holes and bushings. Depending upon the degree of wear this condition could be recovered through skimming.

1. OVALITY (Usually associated with brake judder)

Ovality is when the roundness of the braking diameter is out of shape. Brake drums cannot be made oval, we work to a maximum tolerance of 0.005", but can be knocked out of shape through mis-handling or excessive heat. If you have any doubts consult with your brake specialist or contact our sales department.

RECOMMENDED MAXIMUM BRAKE DRUM DIAMETERS

NEW DRUM DIAMETER in MM's	MAXIMUM SKIM DIAMETER in MM's	MAXIMUM WORN DIAMETER in MM's
300	302	303
305	307	308
308	310	311
310	312	313
311	313	314
325	327	328
330	332	333
335	337	338
350	353	354
360	363	364
359	362	364
381	384	385
394	397	398
410	413	414
413	416	417
414	417	418
419	422	423
420	423	424



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POPULAR BRAKE LINING REFERENCES AND ASSOCIATED NEW BRAKE DRUM DIAMETERS (in mm's)

AX14	420	DF44	420	GG171	330	MB76	410	PB36	410	SJ32	367
BC55	300	DF45	420	GG179	394	MB77	410	PB37	410	SJ33	367
BC80	300	DF46	420	GG180	394	MB80	270	PB38	410	SJ34	367
BC97	420	DF47	420	GG182	308	MB81	270	PB39	410	SJ35	367
BC98	420	DF48	420	GG183	308	MB82	410	PB40	410	SJ36	305
BC99	420	DF49	420	GG186	330	MB83	410	RN100	414	SV8	413
BC100	360	DF50	420	GG187	330	MB84	410	RN101	414	SV26	413
BC101	360	DF51	420	GG189	394	MB85	410	RN102	360	SV27	413
BC104	360	ET1	394	GG194	330	MB98	360	RN103	360	SV34	413
BC105	360	ET2	394	GG195	406	MB99	360	RN105	310	SV35	413
BC106	300	ET5	419	GG207	360	MB100	300	RN106	325	SV37	413
BC107	300	ET6	419	GG208	360	MB101	300	RN107	325	SV39	413
BC108	300	FI100	325	GG209	325	MB102	304	RW1	419	SV40	413
BC109	420	FI101	325	GG210	325	MB103	304	RW2	419	SV41	413
BC110	300	FI102	325	GG211	360	MB104	360	RW5	419	SV42	413
BC111	300	FI108	400	GG214	360	MB105	360	RW6	419	SY8	405
BO37	330	FI109	400	GG215	360	MB109	308	RW9	311	SY9	405
BO38	330	FI120	325	GG216	360	MB110	308	RW13	311	SY19	420
BO39	330	FI121	325	GG217	360	MB111	364	RW21	350	SY20	325
BO40	330	FT5	420	GG218	360	MB112	364	RW22	350	SY22	325
BO57	359	FT6	419	GG219	308	MB113	364	RW23	394	SY23	420
BO58	359	FT7	419	GG220	308	MB114	364	RW24	381	SY24	420
BO59	359	FT8	419	GG232	360	MB117	300	RW25	381	SY25	325
BO60	359	FT9	419	GG233	360	MB118	300	RW26	360	SY26	325
BR22	419	FT10	355	GG234	360	MP30	410	RW27	410	SY31	420
BR25	419	FT11	419	GG235	360	MP31	410	RW28	410	SY32	325
BR31	394	FT12	419	GG236	360	MP32	410	RW29	410	SY33	324
BR32	394	FT13	419	IL66	419	MP36	410	RW30	410	SY34	324
CS63	394	FT14	419	IL67	419	MP37	325	RW31	410	TI18	394
CS64	394	FT15	419	IL68	419	MP38	325	RW32	410	TI19	394
CS65	394	FT16	419	IL69	419	MP39	325	RW33	410	VL70	413
CS67	394	FT17	419	LE59	394	MP40	325	RW34	419	VL41	413
CS68	394	FT18	419	LE60	394	MQ1	311	RW35	419	VL72	394
CW4	381	FT19	356	LE63	394	MQ2	311	SA8	406	VL73	394
DA50	406	FT20	356	LE64	394	MQ3	311	SA9	406	VL74	413
DA51	406	FT21	300	LE69	394	MQ4	311	SA10	414	VL75	413
DF14	406	FT22	300	LE70	410	NN60	406	SA11	414	VL76	394
DF15	406	FU4	419	LE71	410	NN61	406	SA20	305	VL77	394
DF16	419	FU5	419	LE72	410	PB11	410	SA21	305	VL81	394
DF17	419	FU17	311	LH82	394	PB12	410	SA26	310	VL82	394
DF20	419	FU18	311	LH94	330	PB16	410	SA27	310	VL83	394
DF21	419	GG83	394	LH98	330	PB17	410	SA28	325	VL84	394
DF22	419	GG92	394	LH99	330	PB18	410	SA29	325	VL85	410
DF23	419	GG118	394	LH103	308	PB19	410	SA30	325	VL86	410
DF24	419	GG140	394	LH104	308	PB20	410	SA31	325	VL87	410
DF25	419	GG142	394	LZ1	305	PB21	410	SA34	414	VL88	410
DF30	420	GG144	330	LZ2	305	PB22	360	SA35	414	VL89	410
DF31	420	GG145	308	LZ3	305	PB23	310	SA36	305	YK6	394
DF33	420	GG146	308	LZ4	355	PB24	410	SA37	305	YK7	394
DF34	420	GG147	308	LZ5	355	PB25	410	SJ22	300	YK8	394
DF35	420	GG148	308	LZ6	305	PB26	310	SJ23	300	YK9	394
DF36	420	GG150	394	LZ7	305	PB27	410	SJ24	300	YK10	311
DF37	420	GG151	394	LZ8	305	PB28	410	SJ25	300	YK11	311
DF38	420	GG153	394	LZ9	305	PB29	410	SJ26	355	YK12	335
DF39	420	GG155	394	LZ10	305	PB30	410	SJ27	355	YK13	355
DF40	419	GG156	330	MB69	300	PB31	410	SJ28	420		
DF41	419	GG157	387	MB70	300	PB32	410	SJ29	420		
DF42	419	GG163	330	MB74	410	PB34	410	SJ30	420		
DF43	419	GG164	330	MB75	410	PB35	410	SJ31	420		

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