



FUWA K HITCH (Australia) Pty Ltd

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TECH BULLETIN

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SPRING DEFLECTION ON MECHANICAL SUSPENSION

SPRING TYPE	SINGLE SPRING <i>mm/ton</i>	SUSPENSION <i>mm/ton</i>			PIG** SINGLE <i>mm</i>	PIG** TANDEM <i>mm</i>	PIG** TRI <i>mm</i>
		SINGLE AXLE	TANDEM AXLE	TRI AXLE	8.5ton**	15ton**	18ton**
3L (75mmx22mm)	5.2 to 7.2	2.6 to 3.6	1.3 to 1.9	0.9 to 1.2	22 to 31	20 to 29	16 to 22
8L (75mmx13mm)	5.8 to 7.8	2.9 to 3.9	1.5 to 2	1 to 1.3	25 to 33	23 to 30	18 to 23
9L (75mmx13mm)	4.9 to 6.9	2.5 to 3.5	1.2 to 1.7	0.8 to 1.2	21 to 30	18 to 26	19 to 22
13L (75mmx10mm)	4.4 to 6.4	2.2 to 3.2	1.1 to 1.6	0.7 to 1.1	19 to 27	17 to 24	13 to 20

** The Example is for the mass limits on a Pig trailer in Victoria.

Note: Some FKH drawings refer to slightly different spring deflection values – take the more conservative number!

WARNING:

- The spring deflection is only one factor of the total possible wheel movement.
- The rocker box oscillation will add considerable to the wheel movement.
 - For a quick reference see the tables on the next page.
Engineering can work out the total jounce for any suspension.
- Add some safety clearance to the total jounce.
- Be aware of the actual tire diameter.

Suspension Part Number:	KH	Manufacture (K Hitch)
	U, DO	Underslung, Overslung
(Sample: KHDO2C8)	1,2,3	Number of axles
(KHU2C8)	A,B,C,D	Suspension spread
	3,8,9,13	Number of spring leaves



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MAXIMUM VERTICAL AXLE TRAVEL (mm): SUSPENSION OSCILLATION PLUS SPRING DEFLECTION.

KHU UNDERSLUNG	PIG** SINGLE (1A) <i>mm</i>	SUSPENSION SPREAD	PIG** TANDEM (2) <i>mm</i>	PIG** TRI (3) <i>mm</i>
	8.5ton**		15ton**	18ton**
3L (75mmx22mm)	31	B 8'1"	59	82
		C 9'1"	54	62
		D 10'1"	74	107
8L (75mmx13mm)	33	B 8'1"	60	83
		C 9'1"	55	63
		D 10'1"	75	108
9L (75mmx13mm)	30	B 8'1"	56	82
		C 9'1"	51	62
		D 10'1"	71	107
13L (75mmx10mm)	27	B 8'1"	54	80
		C 9'1"	49	60
		D 10'1"	69	105

KHDO OVERSLUNG	PIG** SINGLE (1A) <i>mm</i>	SUSPENSION SPREAD	PIG** TANDEM (2) <i>mm</i>	PIG** TRI (3) <i>mm</i>
	8.5ton**		15ton**	18ton**
3L (75mmx22mm)	31	B 8'1"	59	82
		C 9'1"	59	77
		D 10'1"	69	102
8L (75mmx13mm)	33	B 8'1"	60	83
		C 9'1"	60	78
		D 10'1"	70	103
9L (75mmx13mm)	30	B 8'1"	56	82
		C 9'1"	56	77
		D 10'1"	66	102
13L (75mmx10mm)	27	B 8'1"	54	80
		C 9'1"	54	75
		D 10'1"	64	100

** The Example is for the mass limits on a Pig trailer in Victoria.

Important Note: ADD 25-30mm TO FIGURES IN THE TABLES TO ALLOW FOR CLEARANCE TO MUDGUARDS/CHASSIS AS DYNAMIC LOADING CAUSED BY ROAD BUMPS AND/OR CORNERING WILL INCREASE OVERALL DEFLECTION