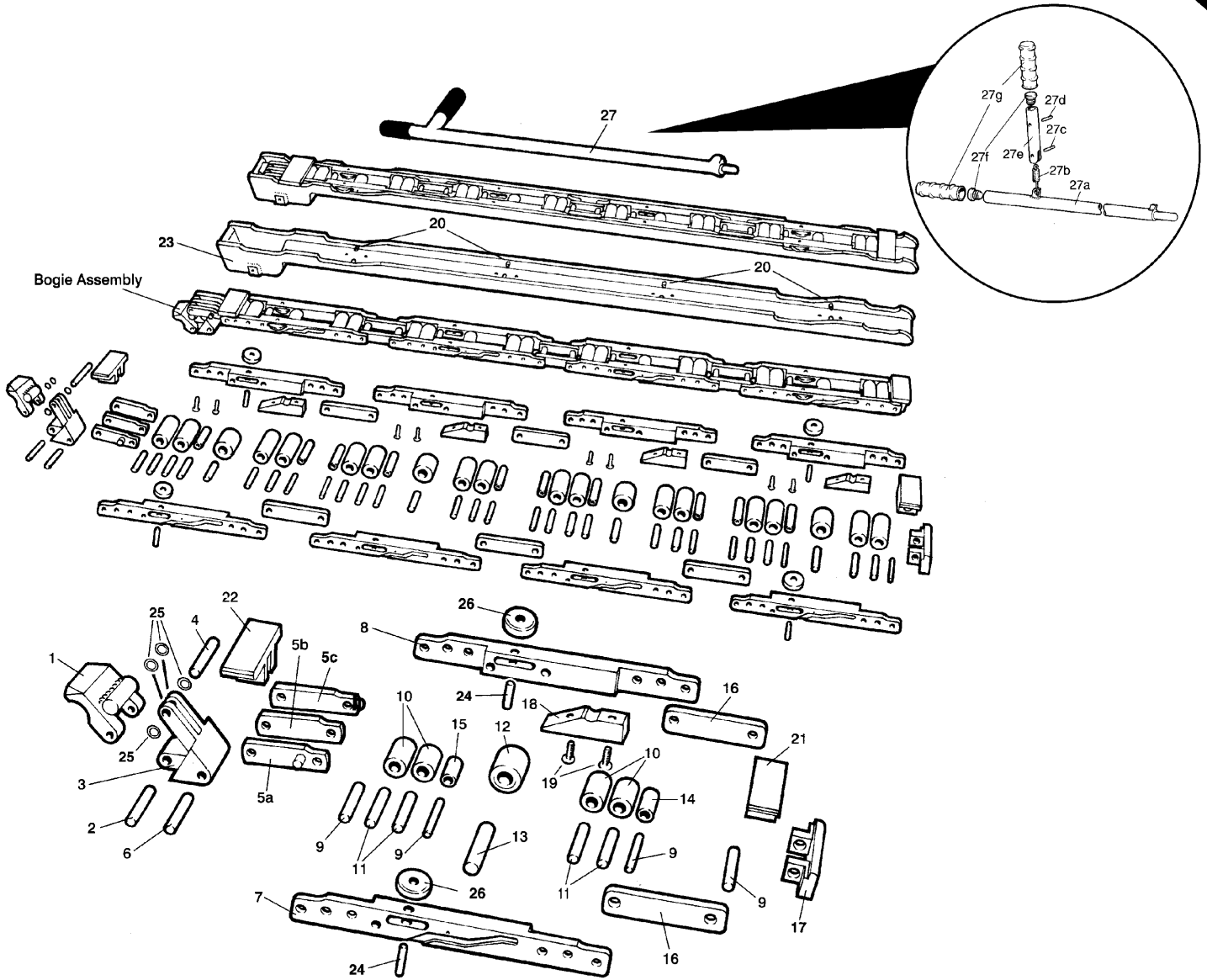


# Heavy Duty 16 Roller Side Roller Skate: Diagram and Parts List

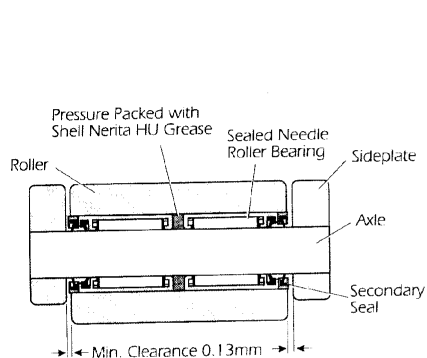
Model  
3500kg SWL  
Per Pair



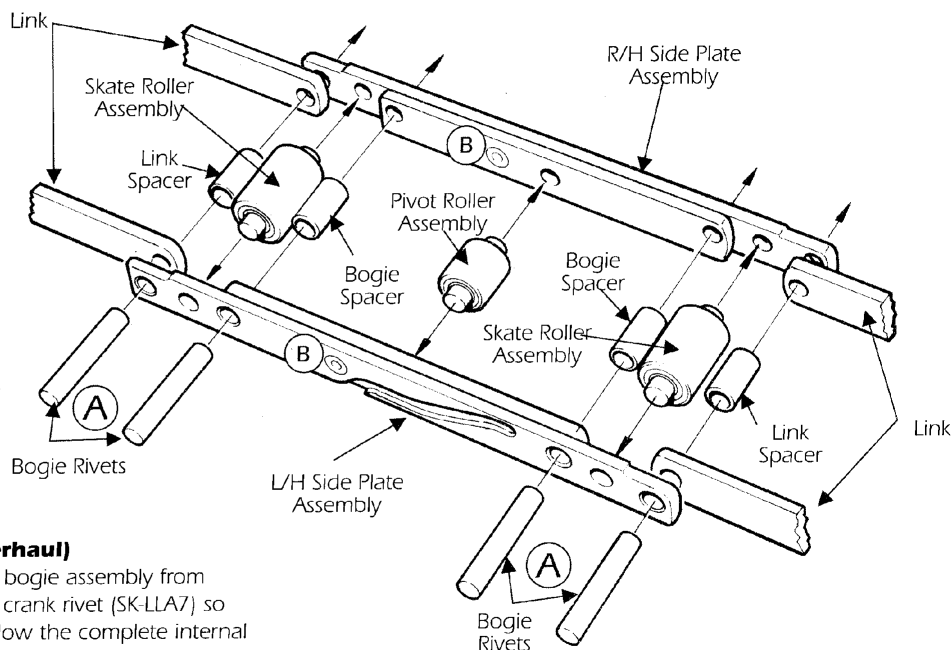
ITEM	PART NO.	DESCRIPTION	QTY	ITEM	PART NO.	DESCRIPTION	QTY
1	SK-LLA15L	Straight Link Flap	1	17	SK-LLA23	End Stop	1
2	SK-LLA2/A	Flap Pin	1	18	SK-HDA24R16	HD Side Roller Ramp	4
3	SK-HDA35L	Straight Link Bell Crank	1	19	SK-LLA25	Counter Sunk Socket Screw	8
4	SK-LLA45L	Straight Link Bell Crank Rivet	1	20	SK-LLA26/A	Frame Pin	8
5a	SK-LLA6SLL	Straight Link Bell Crank Link (L/H)	1	21	SK-LLA27	Self Cleaning Block	1
5b	SK-LLA6SL	Straight Link Bell Crank Link (M/H)	1	22	SK-HDA27	Self Cleaning Block for Side Roller	1
5c	SK-LLA6SLR	Straight Link Bell Crank Link (R/H)	1	23	SK-HD-A30-120 16RSR	Frame	1
6	SK-LLA7	Box/Bell Crank Rivet	1	24	SK-HDA31	Side Roller Axle	4
7	SK-HDA8R16	Bogie Side Plate (L/H)	4	25	SK-LLA33	Bell Crank Washer	4
8	SK-HDA11R16	Bogie Side Plate (R/H)	4	26	SK-HDA34	Heavy Duty Skate Side Roller	4
9	SK-LLA13/A	Bogie Rivet	12	27	SK-OPMF/B	Multi-Function Operating Handle	1
10	SK-LLA14	Skate Roller	16	27a	SK-OPMF/B-MB	Handle Main Bar	1
11	SK-LLA15	Skate Roller Axle	16	27b	SK-OPMF/B-SPR	Spring	1
12	SK-LLA18	Pivot Roller	4	27c	SK-OPMF/B-SSR	Rivet	1
13	SK-LLA19	Pivot Roller Axle	4	27d	SK-OPMF/B-SPL	Spring Pin	1
14	SK-LLA20	Link Spacer	6	27e	SK-OPMF/B-HG	Pulling Handle	1
15	SK-LLA21	Bogie Spacer	4	27f	SK-OPBUNG	Black End Cap	2
16	SK-HDA22 120 4B	Link for 1.2m Heavy Duty Skate	6	27g	SK-OPGRIP	Red Rubber Handle	2



# Heavy Duty 16 Roller Side Roller Skate: Axle & Roller Replacement Procedure



Section Across Roller Assembly SK-HDRA1



### Replacement Procedure (Major Overhaul)

First remove complete bell crank, flap and bogie assembly from housing by drilling the head from the bell crank rivet (SK-LLA7) so that it can be pushed through. This will allow the complete internal assembly to be removed.

Drill to remove 4 rivet heads marked 'A' leaving small rivets marked 'B' in place and punch out old axles progressively with 8mm punch. Rotate long l/h side plate (SK-LLA8/A) to expose SK-LLRA2 axle top end. Rotate in opposite direction long r/h side plate (SK-LLA11/A) to expose SK-LLRA2 axle bottom end. Punch out axle with 8mm punch. Remove side plate assemblies, mark spacers to ensure replacement in original positions.

### To re-assemble

Place face down on steel bench, part assembled long and short l/h side plates. Fit new pivot roller assembly (SK-LLRA2) - 2 new Roller assemblies (SK-HDRA1) - 2 old bogie spacers (SK-LLA21) and insert 2 new rivets (SK-LLA13). Tap into place face up, partly assembled long and short r/h side plates to make full bogie.

Spread end of rivets with "ball tool" (25mm ball bearing in holder) and get correct width of bogie at middle and both ends with micrometer - maintain dimensions 50.25mm +0.0mm - 0.25mm. Check dimension by sliding bogie in frame. Check clearance with feeler gauge (0.3mm - 0.68mm). When width correct "Peen over" rivet ends with hammer.

When 4 bogie assemblies are rebuilt, assemble together with old links and spacers using new rivets (SK-LLA13). Full inner assembly is ready to be fitted into frame.

Check all side pins are in place and not damaged. Slide inner assembly into frame ensuring side plate slots engage with frame pins - slide bell crank into frame - check the flap & pin are in place - insert bell crank rivet (SK-LLA7) spread and peen over rivet ends. Test skate for smooth up/down operation.

### Tools Required:

- 1 - 1kg Hammer
- 1 - 8mm Punch
- 1 - 9.5mm Drill
- 1 - 25mm Ball Spreader Tool
- 1 - Copper Hammer No. 1

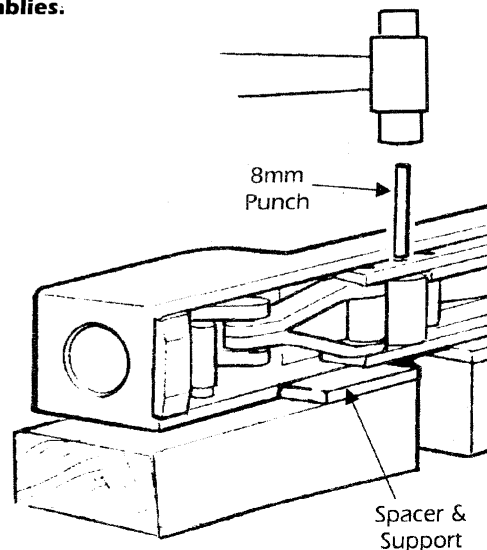
### Materials Required Per Skate

- 8 - Rollers complete with Bearings and Axles (SK-HDRA1)
- 4 - Pivot Rollers complete with Bearings and Axles (SK-LLRA2)
- 1 - Bellcrank Rivet (SK-LLA7)
- 16 - Rivets (SK-LLA13)

### Replacement Procedure - SK-HDRA1 roller assemblies only:

Put skate on its side and place bogies in the lift position. Support the relevant side plate with 6mm spacers or washers leaving space for the axle to be driven out. Punch out the axle from the top with a 8mm drift, when axle is clear remove old SK-HDRA1 roller assembly. Refit new SK-HDRA1 roller assembly and align carefully before tapping in new axle with a No. 1 size copper hammer (to ensure axle is not damaged). Make sure the axle is flush with the side plate and the bogie assembly will then retract back into the frames easily.

### Do not use old axles when replacing SK-HDRA1 roller assemblies.



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