SERVICE BULLETIN

Title: 19XL Impeller/Shroud Clearance
Models Affected: 19XL

Number: C9608
Date: 2/1/96
Supersedes:
Date:

Purpose:

To advise of a change in the dimension for the 19XL compressor impeller to shroud clearance (see Attachment with Figs. 1 & 2) for higher lift and capacity impellers.

File: Compressor-Motor-Drive-Gears

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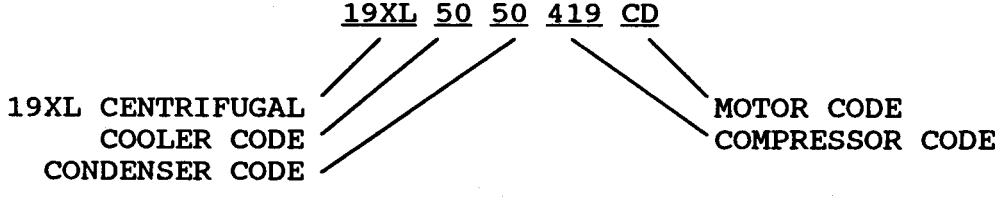
Background:

Since the implementation of SB C9407 some additional 19XL compressors have had changes in clearances from the impeller to the shroud. Depending on the lift and capacity, either 0.015 inches (0.381 mm) or .025 inches (.635 mm) are the clearances that should be used. This SB supersedes any previous SB's and should be referred to for the proper clearances between the impeller and shroud.

Procedure:

The clearance dimension will change based on the compressor code of the machine, which is indicated on the machine model number:

Example:



Attached is a table of the proper clearances from the shroud to impeller depending on the compressor code. The clearance is identified as the "Z" dimension in the **Start-Up, Operation and Maintenance Instructions** under Compressor Fits and Clearances. This dimension is also used in the Impeller Shimming Procedure Worksheet attached.

Impeller Shimming Procedure Worksheet on 19XL

Steps:

1. Set impeller in shroud positioned vertically as shown in Fig 1. Rotate impeller to remove burrs etc. Place precision straight edge across back side of impeller.
2. Measure from top side of straight edge to shroud mounting surface _____
3. Measure from top side of straight edge to hub counter bore _____
4. Subtract "Z" (impeller tip clearance) from step 3 _____
5. Subtract step 4 value from step 2 _____
6. Place precision straight edge across the shroud mounting surface of the pipe diffuser see Fig 2
7. Measure from outer surface of straight edge to surface of spacer with impeller shaft in the counter-thrust position (toward motor) _____
8. Subtract thickness of straight edge and high speed shaft float from value in step 7 _____
9. Subtract value from step 5 from value from step 8 to obtain required shim thickness _____

New Comp Code	Old Comp Code	"Z" In. (mm)	New Comp Code	Old Comp Code	"Z" In. (mm)
410-411	223-224	.015 (.381)	478-479	NA-387	.025 (.635)
412-417	321-326	.015 (.381)	480-481	293-294	.025 (.635)
418-419	NA-327	.015 (.381)	482-487	391-396	.025 (.635)
420-421	233-234	.015 (.381)	488-489	NA-397	.025 (.635)
422-427	331-336	.015 (.381)	490-491	203-204	.025 (.635)
428-429	NA-337	.015 (.381)	492-497	301-306	.025 (.635)
430-431	243-244	.015 (.381)	498-499	NA-307	.025 (.635)
432-437	341-346	.015 (.381)	516-517	NA	.015 (..381)
438-439	NA-347	.015 (.381)	518-519	NA	.025 (.635)
440-441	253-254	.015 (.381)	526-527	NA	.015 (.381)
442-447	351-356	.015 (.381)	528-529	NA	.025 (.635)
448-449	NA-357	.015 (.381)	536-537	NA	.015 (.381)
450-451	263-264	.015 (.381)	538-539	NA	.025 (.635)
452-457	361-366	.015 (.381)	546-547	NA	.015 (.381)
458-459	NA-367	.015 (.381)	548-549	NA	.025 (.635)
460-461	273-274	.015 (.381)	556-557	NA	.015 (.381)
462-467	371-376	.015 (.381)	558-559	NA	.025 (.635)
468-469	NA-377	.015 (.381)	566-567	NA	.015 (381)
470-471	283-284	.025 (.635)	568-569	NA	.025 (.635)
472-477	381-386	.025 (.635)	NA: No Old Comp Code		

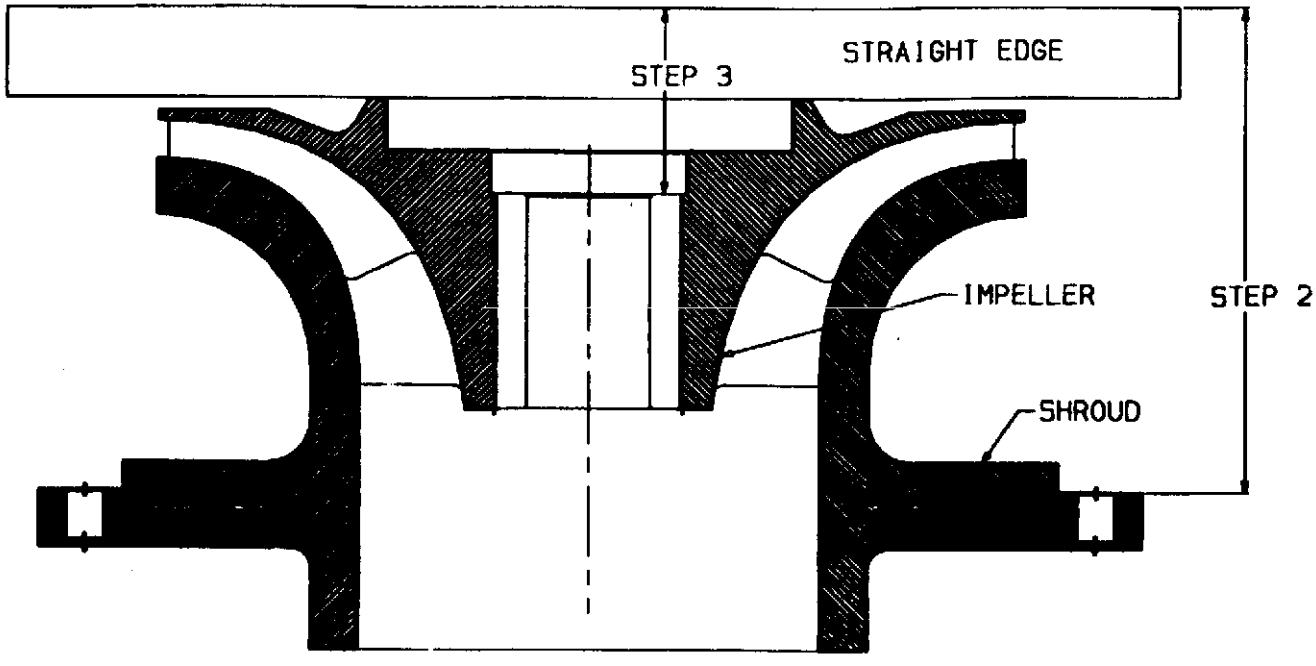
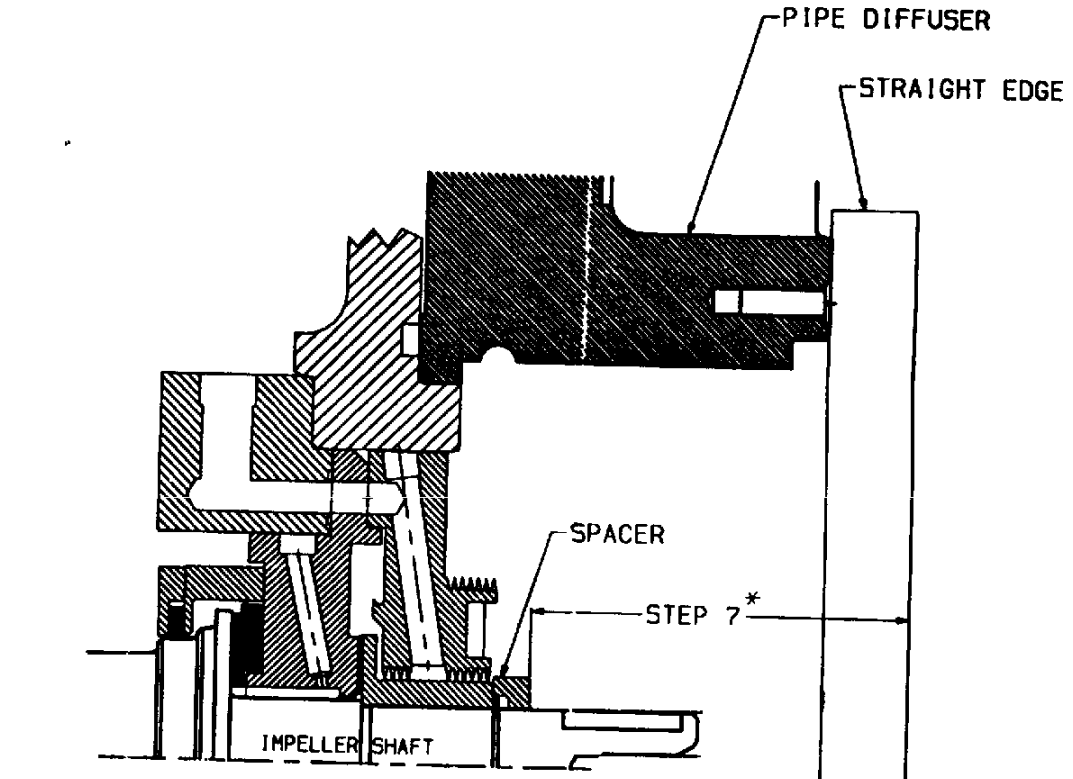


Fig.1



*Note: BE POSITIVE to HOLD SHAFT IN COUNTER THRUST POSITION.

Fig.2