3070-69

S E R V I C E N O T E

Supersedes:
NONE

44990-41206 Conveyor Belt For Express Fixturing System

Serial Numbers: see Solution/Action

In May 2002, a customer noticed that his replacement 44990-41206 conveyor belts were defective when one of the belts broke after only a few hours of use in a system. The factory immediately checked the inventory of belts at GTLS and found that several of the belts were also defective. Since the defective belts were all singles from different lots, the probability is high that most of the parts from those defective lots have already been sent to the field or customers as replacement parts.

Parts Required:

P/N	Description	Qty.
44990-41206	Conveyor Belt	1

ADMINISTRATIVE INFORMATION

SERVICE NOTE CLASSIFICATION:
INFORMATION ONLY
AUTHOR: VB PRODUCT LINE: 80
ADDITIONAL INFORMATION:

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Agilent Technologies

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Situation:
The 44990-41206 conveyor belt is made by injecting polyurethane into a large drum and then spinning the drum so the material is thrown against the interior walls, which have the features of the belt machined into the surface. Because this belt is used to push pc boards, the 5 tabs spaced out on the belts flat surface have to be harder than the rest of the belt so they don't wear excessively when in contact with the pc board.

To accomplish this, the manufacturer injects a harder polyurethane into the drum, spins the drum until the cavities for the tabs are filled, and then injects a softer polyurethane into the drum to make the rest of the belt. Occasionally, too hard of a polyurethane is used so the tabs aren't flexible enough, or the operator injects too much of the hard polyurethane into the drum so the section of belt below the tab is hard polyurethane instead of soft polyurethane. In either case, after a few hours of bending around a radius, such as on the EFS Board Handler conveyor system, the belt will crack at the tabs.

In May 2002, a customer noticed this defect with some of the replacement belts he had on hand.

Solution/Action:
All the belts in stock at GTLS were shipped back to Loveland where one from each lot was inspected and tested on a board handler. Of the parts tested, 4 were found to be defective.

The 4 defective belts had the markings shown below. A belt in the field with these markings is most likely also defective and should be returned to GTLS for replacement. Please contact John Cano at T788-5644 to arrange for the replacement. Defective belts will be returned to the vendor for credit.

Part Number on Belt	**Date Code on Belt**	**Lot # on Bag Label**
1040XL 4499041206 B	U8	121338
Part Number on Belt	**Date Code on Belt**	**10 digit # on Bag Label**
1040XL 4499041206 B	C8	2659957442
1040XL 4499041206 B	I7	2659957442
1040XL 4499041206 B	A8	2659957442

The belts tested and found to be good had the following part numbers, lot numbers and date codes. All belts with these markings are good.

Part Number on Belt	**Date Code on Belt**	**Lot # on Label in Bag**
C44990 41206 1	C1	168053
C44990 41206 1	C1	168119
C44990 41206 1	C1	168189

A belt that doesn't have the markings of either the bad belts or the good belts has not been checked and will need to be tested in the field. This can be done in the following two ways.

Subjective test: First, inspect the 5 tabs on the belt. The bad belts have tabs that are very hard. When you press your nail into the tab, the polyurethane won't compress at all. The good belts are softer so your nail will compress the polyurethane. Second, while holding the outer teeth of one of the tabs, bend the belt in such a way that spreads the teeth apart. A good belt will stretch in the valleys between the teeth. A bad belt will crease without stretching at all.

Objective test: Run the belt on the EFS Board Handler for a couple hours. After this amount of time, a bad belt will have cracks in the valleys of the tabs that can be seen from the side while bending the belt. A good belt will not have cracks.