Conversion Waldrich Coburg Photo report
Waldrich WU 155

Waldrich planer reconstruction

Created hpw09_07_2016 / 04122018
Use: Year 2000/2016

Task: customer was looking at the European market a manufacturer of planing machines, which hobelt its components with no delay. Since cold-drawn material is processed, all milling tests were failed. The delay was in the mm range, although some milling specialist wanted to prove it, that it works. It did not work. Only plane is when the cold-drawn steel, divided at the same time on all 4 sides equally, is removed. So there was no delay. The WIAP AG developed the concept, sought an existing planer for the customer and this was then used as CNC machine built.

Since the hall of the customer was only 3.4 meters high and the planer was 4 meters, also a reduction had to be made. We have shortened both side columns by 450 mm.

Conversion CNC Waldrich - retrofit conversion contract, WIAP machines reduction in height

Figure 1: The planer with the shortened side columns. First, we can drill 4 40 H7 pin holes on a boring mill at 0.01 mm accuracy.

Figure 2: Then let it cut on a large Lasersäge in the middle of the pin holes. Then the pins could only be engaged and the side columns are fixed to the side plates.

Conversion CNC Waldrich assembly of the machine

Figure 3: This heavy, sturdy machine has been completely dismantled only by transport and rebuilt.

Figure 4: The side tapering was protected with protection zones for the surgeon, with a so-called horn zone and a stop zone.

Figure 5: Best quality Waldrich machine with CNC extensions by WIAP AG.

Figure 6: The CNC controller was chosen by a German manufacturer. There have been chosen three modes. Manual, semi-automatic and CNC operation.

Figure 7: The table drive running with a hydraulic drive, which can be quickly to 70 meters per minute. Since it was a bit oily.

WIAP Schlittensytem. The machine had only two carriages with swivel steels

Figure 8: This new slide system was constructed by the WIAP AG so that may be several steels engaged simultaneously.

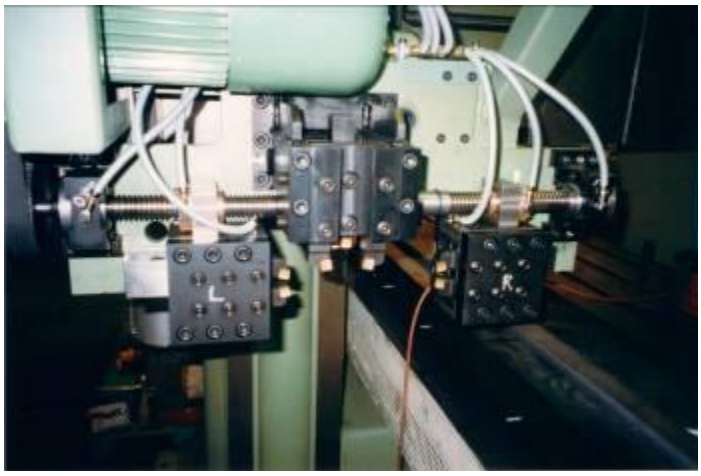

Figure 9: Vertical, 2 sled 3 steels, see tool holder in the center.

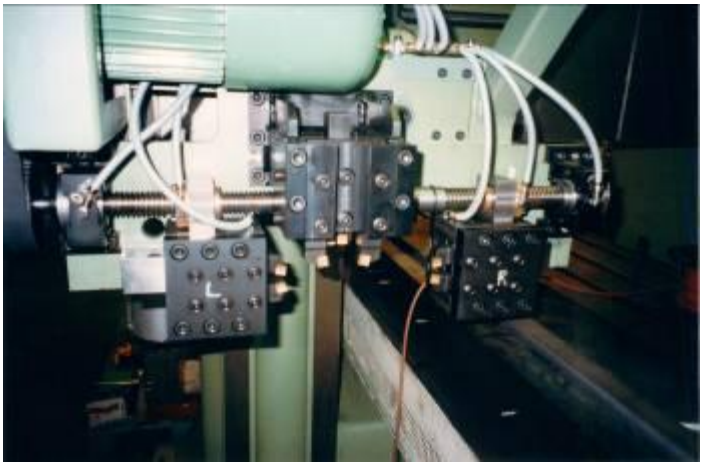

Figure 10: are each 2 steel side left and right, up and down. The two lateral sledge run with a left / right spindle. So that they always run to the middle and move only a feed motor, these four must steels.

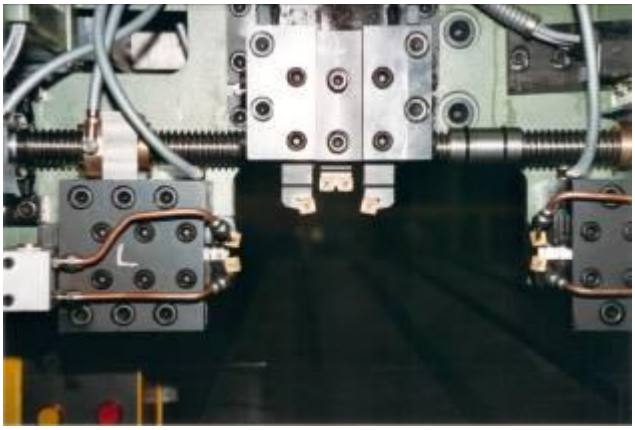

Figure 11: The whole structure on a heavy swinging sledge. Left side and right side.

Figure 12: Everything was built compact. And emerging against the, at a planer protected Flies chips.

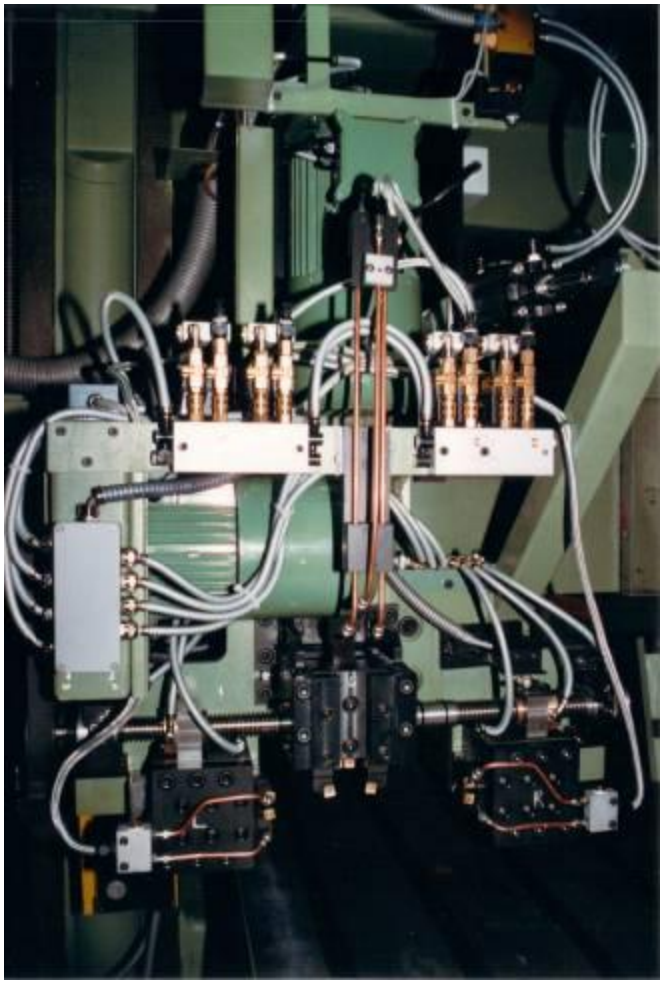

Figure 13: The lubrication system has been achieved with a minimal quantity lubrication. It took four valves so. Once left horizontal slide, once left vertical carriage; then the same in the right carrier.

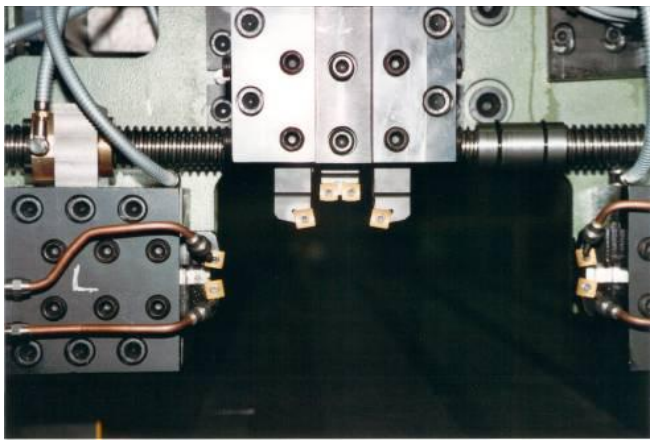

Figure 14: All the tool holder so badly designed that they could not come to a natural oscillation in the chip removal. With natural oscillations is indeed the WIAP AG some experience through the metal relax with vibration, newly called MEMV.

Figure 15: The entire construction of the carriage, tool holder and tool selection were determined by the WIAP AG. It was included with the WIAP AG.

Figure 16: The machine required 2 middle vertical holder and outer holder 4/2 x 2 x left and right hand design.

Figure 17: This young man who graduated from the apprenticeship at WIAP AG, a lot could learn when it comes to cutting, along with installation of the technology.

Figure 18: Robust WIAP steel bracket concept for planing a Waldrich planer.

Figure 19: The tool presetting and control whether the preparation is ok according to the drawing.

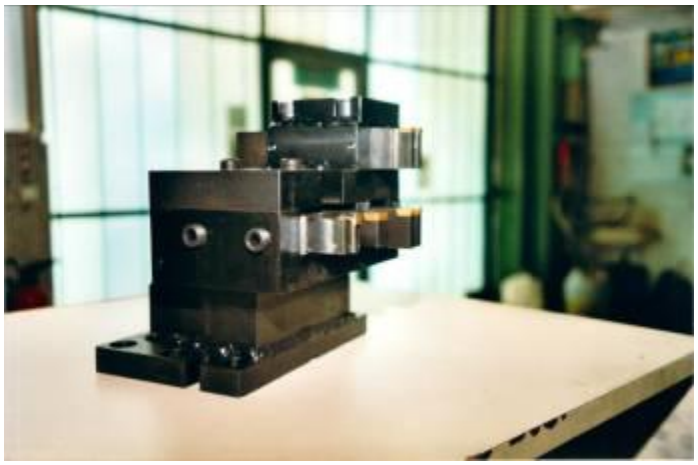

Figure 20: The circulation of the tool holder was still eingeschabt so that no air gap, with vibrations of the tools that could affect the machining.

Figure 21: All the project the electrical part from the beginning was integrated.

Figure 22: 4 CNC axes, of which two axes, a left / right - performs a dual function overflow solution, ie 4 tools simultaneously per slide and there are two slides, ie 8 tools machining simultaneously.

Figure 23: In solving normal engines that were available, used as controlled feed motors with a controlled system were. but they did almost 20 years their services. So ok.

Figure 24: The high-voltage section is housed in a small cabinet side and compactly attached to the rebuilt engine. Not, as is traditional, externally from the machine. So everything could be transported without disassembly. WU4018

Figure 24: The CNC control with the operation was almost 20 years in operation.

Figure 25: Electrical cabinet assembly of Waldrich planer. Cabinet mounted directly on the machine.

Conversion CNC Waldrich - Transport

Figure 26: This heavy WIAP Waldrich planing machine was designed by the WIAP AG so that they could be delivered as a transport unit.

Figure 27: The Verlad the machine could be well performed with the 2 x 10 ton overhead cranes.

Figure 28: The holes in the bed were at the lower limit for the lifting of the machine. But it had to go because of Ablad the customer some of it was even more complicated.

29: So now the machine is ready for lifting. In the middle Caroline Widmer, who then planned the whole electrical part and carried out.

Figure 30: Some oil under the machine.

Figure 31: The machine is loaded onto a low-goers trailer.

Figure 34:. The remaining goods, including the large hydraulic unit is loaded onto the truck. Since several hundred liters of oil were there.

Figure 32: Finished machine before delivery
Iris Widmer and Jim Widmer

Figure 35: Finally the Waldrich planer on the trailer.

Figure 33: Cultivation of Horn zone for this machine. It is immediately stopped in case of danger zones apprehended.

Figure 36: Even the last controls.

37: Now the machine had to wait overnight to unload. Since it was not clear, rain or not, they had to be covered.

Figure 39: At the retail level the machine with the WIAP Transportjoch could be unloaded.

Picture 37a: lift this heavy Plan with the crane, was easier than by hand.

Figure 40: A sloping driveway with such a heavy machine requires great care and a good interaction between the people who carry out the transport.

38: So now the machine is ready for the ride to end customers.

When WIAP AG are not only the old who can do that. For years, the WIAP this training, intensified for the cockroaches. There are always two shaving machines at hand.

The cost of a retrofit (conversion with revision) to a new machine is about 40 to 60% of a new machine, because the basic meat is available. Only an exchange of CNC without drives what is possible today, with analog drives, can not be held rare even among 10 to 20% of the machines new purchase value. Even then, you have the built latest CNC control on the machine so that the operator does not feel he has an old machine. Thanks to the WIAP alarm system design prevents incorrect operations and not know how to do something, backed with messages. This results in

a very simple operation for all employees who work on a retrofitted by the WIAP machine. Thus its pleasure to work with the machine.

Manufacturers and sales, design electrically and mechanically, all from one source

WIAP ® AG Ltd SA
Industriestrasse 48L
CH-4657 Dulliken

Phone: ++ 41 62 752 42 60
Fax: ++ 41 62 752 48 61
wiap@widmers.info
www.widmers.info / www.wiap.ch