



WIAP®

MEMV®



International staff training in machine construction

Introduction: The WIAP has a new machine tool maintenance system program developed. The Control System makes it easy, stress-free run the sub-neck work. The report shows follow a daily routine to maintain a 1,000-head operation. The WIAP shouldered the upkeep all the people came without training from school directly into the maintenance and had to be trained practically level of a graduating student. The result is convincing. With a good training program and some patience that goes well. The WIAP has developed a new educational program WIAP MEMV.

Picture report. Angola Trip1 - 4, 2014. report Summary

Created hpw 21_12_2014

Conversion CNC lathe Mega Bore



Image 1)A hole in the casing of the Mega Bore CNC machine has caused water damage. The roof was leaking. The Fanuc 18i was thereby significantly damaged. It was so complicated that we decided to replace the control with a new Sinumerik 802 D. A two-time repair by Fanuc Switzerland was unsuccessful.

In the picture: Once again move in a new cable to the panel



Image 2) The material, which we internals axis for the X- and Z-.



Figure 3) The feed motor was modeled with an extension and a reduction ratio of 1: made. 3



Figure 4) cultivation of the X motor. A very complicated construction, because we have limited space.



Figure 5) The X motor 1/3 stocky with 3 kW. The old engine had 7 kW and was 1: 1. However, only 10 M Rapid with a 10-er ball screw.



Figure 6) This is the brake construction. This was the old engine in the engine. We now have the same engine on all CNC machines. Therefore, we wanted to order any engine brake.



Figure 7) on the motor extension we made the motor with a rotary flange. So that we can turn the engine in any surrounding location.



Figure 10) Yoba during assembly of the Z-motor extension.



Figure 8) This is now the belt brake with the 63-cylinder. He presses with 6 bar, 164 kg.



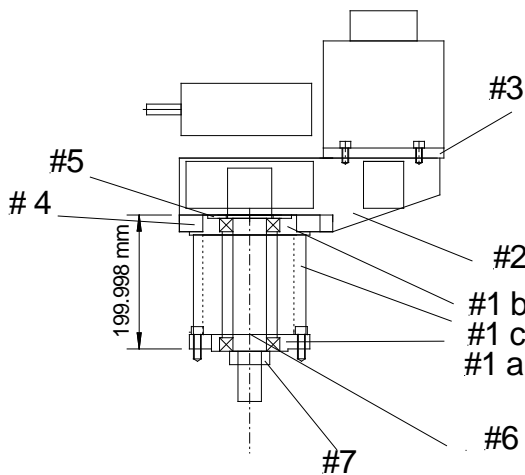
Figure 11) This solution makes the handling flexible.



Image 9) A braking test on the workbench



Image 11b) Yoba in the terminal box of the Z axis herrichten.



Mega Bore X and Z Motor
16.7.2014

P12) How does the engine design.

could not be recognized a lubricating interruption.

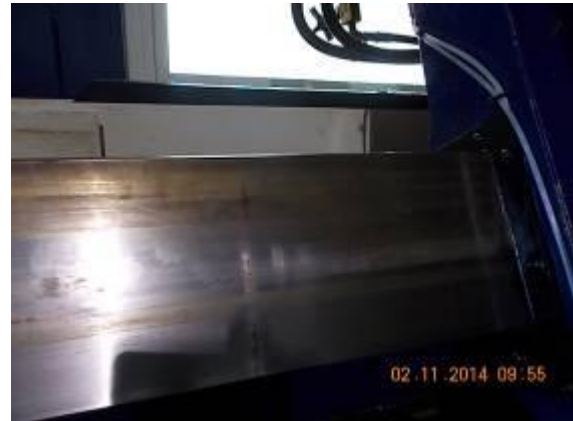


Figure 14) lead abrasion as finite oil came.



Figure 15) The newly grown X spindle feed drive.



Figure 13) The old, existing lubrication system has no pressure control, thus



Figure 16) The Mega Bore CNC Lathe. New with the Sinumerik 802D sl CNC control.



Figure 19) Before:

ORDER:



Figure 17) before: In the closets, it looks as if a bomb had hit. Sorry for the bad image quality, pulled the trigger too early.



Figure 21) After:



Figure 18) Before:



Figure 22) Links 2 boxes of old hard metal plates, all of which were distributed in the six drawers.



Figure 23) This is a Sandvik Capto tool holder 63. Which costs a few dollars. rusted located outdoors and, No rust protection.

made to the 2009 Training missing. The thinking must be learned.



Figure 25) Links Alberto, our maintenance man Malembo.

WIAP DM4C CNC lathe with Gornati headstock:



Figure 24) Here, the operators have with the WIAP Gornati these very good jaws of 4 years old faceplate eager to ensure that the threads are broken out so far at the back spindles. Just because they were too lazy to push the upper jaw forward. It is clear that the



Figure 26) The shoe has dumped because it was too far out.



Figure 27) on the spindle pressed off the thread.



Figure 28) Too far they have unscrewed the top jaw.



Figure 29) The feed was dismantled, cleaned and the injuries deducted. The defective spindle repaired temporarily until a new spindles there is.



Figure 30) The machine can now go on these thin shafts again.



Figure 31) The wave looks safe 2 meters beyond the machine. The tailstock had to be taken away.



Picture 31a) As soon repaired the food, all the workpiece sizes come back to that machine. Often the machine works day and night.

[Repair of TUR, conventional lathe](#)



Figure 32) Here we also need to break down the door lathe. The tapping stopped going.



Figure 33) Throughout the slide we had to take down, because the lubrication pump stopped going and we wanted to know the cause.



Figure 34) Many such magnets fully chips were in the lock nut. That's why she hung no longer correct and the thread has blended. We then decided to turn the spindle. We have to see if that still can be reordered because the Poles companies have reorganized some. This machine was purchased in 1990, that is immediately after the turn.



Figure 35) This is how the spindle from behind



Figure 36) So she looks forward out worn.



Figure 37) This is the lubricating pump, which no longer smeared. With an eccentric it is driven when driving in the Z-axis at high speed.



Figure 38) and Antonio Yoba recover after removal of the longitudinal slide.



Figure 39) The compound slide down a lot of dirt.



Figure 40) The transmission had a lot of mud and dirt down there. It is impossible to do so to clean without dismantling once each.



Figure 41) UVEC protective suits are required in Angola. Without this must not be cleaned with diesel.



see Figure 42) As the moon people from both of our maintenance people Bambi and Alberto.



Figure 43) The cross-slide is prepared again for the assembly after a thorough cleaning.



Figure 44) Again, due to the V guide, the lower handle that is not so old machine TUR is so loaded that it has the sliding coatings, demolished by the transverse forces and then press the intense upward. We had to re-roughen the bonding surface so that it has cavities for the adhesive. Then re-bonding.
with brass for countersunk screws against the re-tearing of the sliding coatings.



Figure 45) The re-assembly in the process. Yoba and Bambi. Kevin brings new belt and a new thrust from Switzerland.

Knuth bandsaw



Figure 46) Here, a band saw Knuth from Turkey. It stands about five years here. The color is probably a new, water-soluble paint. It drops. we need new and well paint on occasion this machine.



picture 47



picture 48

Angola with Swiss plug. Good claw against the



Picture 48a) Many cables roles in Algoa have the Swiss plug. These are designed for 10 amp. Now the plugs are cut off in many new and mounted.

But these are for 16 amp. Now the bushes burn typically in the cable reels.



Picture 48b) Swiss cable reels for 10 Amp. Not 16!

Repair of Niles, conventional lathe



Figure 49) at the Niles lathe has now once demolished 3 a pen. Once pushed off the Axiallagerbock and torn.



Figure 50) If three times is a mistake to be traded.



Figure 51) was the cross slide dismantled the error to see.



Figure 52) The feed gear from the cross slide was disassembled and made the nip identified. Part of the mother, who is on the lead screw nut is not gone out of the thread out and then has the pinning torn away.



Figure 53) as the carriage was gone, we have seen that the running surfaces of the guides were so strong worn that no more dimples were present. We scraped the carriages treads for even. Since ungeschabte treads to Stik strong tendency slip, which also influences the binding for the Operatuer.



Figure 54) Since this work is very delicate, the maintenance people first had to make a test on a test piece, with the electric shaving machine Biax. Alberto when scraping.



Figure 55) Antonio when scraping



Figure 56) This split nut jammed and did not go into the self. She stopped occasionally hanging in the trapezoidal screw and blocked.



Figure 57) After approximately 4 working days of the carriages was refitted.

Repair of FAR machine



Picture 58) screwed an important machine that pipe threads.



Picture 58b) As it is to maintain, on Saturday, 11.29.2014, at 16:00, came the message that in the Farr machine blocked the transmission.



Figure 59) migrated little in the transmission.



Figure 63) Some damaged areas.

Figure 60) a friction weld in the transmission



Figure 64) with large extensions had to be opened some of the screws.

Figure 61) The inner member is removed to disassemble.



Figure 65) order and clean dismantling helps that no assembly mistakes.

Figure 62) Now it is opened.



Figure 66) The transmission from the inside looks very dirty.

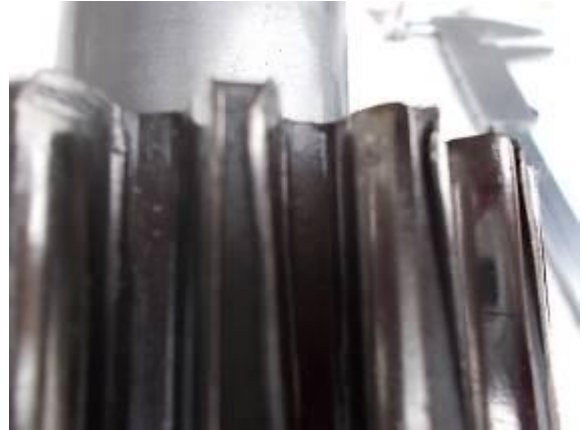


Figure 69) gears where the teeth were weggedrückt.



Figure 67) Very much fat, old dirty fat. Also metal objects containing.



Figure 70) The large gear: The shaft has sheared the wedges.



Figure 68) A good cleaning and maintenance harm here one way or nothing.



Image 70a: Purified transmission according to the replacement member receiving



Picture 70b)



72) An extended manometer solution facilitates working on the machine.



Figure 71) Within four days we got a new gear in Switzerland. Thank you to our fast and mobile suppliers.



Figure 73) The rust is a big problem in Angola.



Picture 71b) Until the spare parts in Angola, the demonitierte goods must be well protected. Lightly oil / grease and cover with oil paper.



Figure 74) Just days machine downtime and let the rust is there.



Figure 75) and Carlo Yoba as chief, deputy Antonio and Alberto and executed Bambi and Lito, must make monthly one image report where everything is controlled us now. For old time the operators always oil and fat have taken in hand. Unfortunately, none of this holds good deed today now more necessary. We must also move the supervisor and foreman of the department to patrols.



Figure 76) If Chevron even a few hours off the current is immediately exploited the time with the machine operator to be able to make a little training. That's what happened here on 10/25/14 Our maintenance people have received additional training so that they can also train. These opportunities are exploited in such moments that they get their hours as an instructor.



Figure 77) are interesting as people interested. , For example, calculate the volume of liters of water in a container, such as the machine space is has. Then how difficult if it is steel? Or wood that people know now again, after repeating the training.

Education in Angola

Figure 78) Education leaves. Lots of information, mouse solution.

Figure 79) meter cut information

WIAP Certificate No.: WI_8_f_97_234_31

Certificate of Competence **Fähigkeitszeugnis**

Issued:
 Association Wiap International/ CH - 5745 Safenwil - Switzerland and
 the Company Algoa, Cabinda, Republic of Angola

Has finished apprenticeship at: Hat die Ausbildung abgeschlossen bei:

Polypractician - Polypraktiker

Name and First Name: **Casimiro José Ioba Armindo**

Born on: **15.11.1984**

Origin from:

English	German	Rating, in Points 1-5
Mechanical assembly	Mechanische Montage	5
Electrical work	Elektrische Arbeiten	5
Mechanical machining	Mechanische Bearbeitung	5
Design, hand drawing, CAD, Storage, Process Planning, Computer IT	Konstruktion, Handzeichn., CAD, Lager, Avon, Computer IT	5
General education, basic knowledge	Allgemeinbildung, Basis Wissen	5
Overall rating	General Note	International =

System International: 02 = unlesbar, 03 = bad, 04 = very weak, 05 = weak, 06 = insufficient, 07 = enough, 08 = pretty good, 09 = well, 10 = very good, 20 = excellent

System International: 02 = unbrauchbar, 03 = schlecht, 04 = sehr schwach, 05 = schwach, 06 = ungenügend, 07 = genügend, 08 = ziemlich gut, 09 = gut, 10 = sehr gut, 20 = ausgezeichnet

Association Wiap International/ CH 5745 Safenwil, Switzerland/ Day.....Month.....Year 2014

Hans-Peter Widmer

Figure 81) Note Table of LAP (final examination)

Confirmation No.: WI_8_f_97_234_a1

Confirmation
 for the profession of
Polypractician

AWARDED TO

Mr. Casimiro José Ioba Armindo

born 15.11.1984
 from:

the Company Algoa, Cabinda, Republic of Angola
 duration of training: 3 years - from October 2011 to October 2014

EDUCATION	FROM	TO
mechanical work, assembling	October 2011	October 2014
electrical work, PLC application	October 2011	October 2014
drawing and design	October 2011	October 2014
store, logistic, process planning	October 2011	October 2014
mechanical machining	October 2011	October 2014

Association Wiap International
 CH 5745 Safenwil, Switzerland
 Day.....Month.....Year 2014

Hans-Peter Widmer

End report image 02 HPW Angola trip 1 to 4 2014

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P80) soon be handed this Certifikate when the LAP is completed in Switzerland.

International Training WIAP

www.wiapwidmers.info:

Title: WIAP maintenance program
MEMV of everyday life report

description: A good machine tool maintenance is often underestimated. It erhöht the safety and reliability of a machine tool. The WIAP trains the and also leads inspection programs for the internal maintenance of plants. New system with the mail controlling WIAP MEMV system where a report of the every day life of a machine tool subsistence.

keyword:

Machine Tool answers the security
Everyday life in the machine tool
subsistence.