

# MOBILE/PORTABLE WHEEL LATHE



# 1AK200<sup>®</sup>

WWW.1AK200.COM

## 1AK200 COMPACT PARTS LIST

| #  | DESCRIPTION                           | QTY |
|----|---------------------------------------|-----|
| 1  | Transport trolley 300kg               | 1   |
| 2  | Wheel spinner WRD-380SE 3kW           | 1   |
| 3  | Stand with machining module           | 1   |
| 4  | Necessary spanners set                | 1   |
| 5  | Magnetic level (60cm/30cm)            | 2   |
| 6  | Universal grease                      | 2   |
| 7  | Geared electric motor                 | 1   |
| 8  | Frequency inverter with box and stand | 1   |
| 9  | Electric cables 40m                   | 2   |
| 10 | Friction wheels 160mm                 | 2   |
| 11 | Safety helmets                        | 2   |
| 12 | Necessary bolts and nuts set          | 1   |
| 13 | Railcar wheel stops                   | 2   |
| 14 | Hydraulic jack 50t with nozzle        | 2   |
| 15 | Round turning inserts RCMX 2507MO-RM1 | 10  |
| 16 | Tool holder PRAMET PRDCN 4040 S 25    | 1   |
| 17 | Turnbuckle 1200-1400mm                | 2   |
| 18 | Tool holder ISCAR                     | 2   |
| 19 | Round turning inserts ISCAR           | 10  |
| 20 | Taxometer                             | 1   |
| 21 | Plastic Tool Box                      | 3   |

## 1AK200 COMPACT ASSEMBLY VIDEO GUIDE

<https://www.youtube.com/watch?v=bkykY9YOcvE>

## 1AK200 COMPACT ASSEMBLY GUIDE

A good mechanic always check all the nuts and bolts.









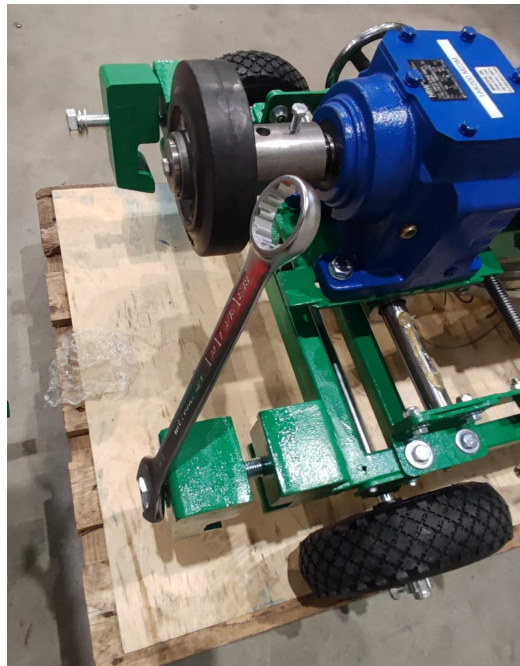
## 1AK200 WRD-380 wheel spinner

A good mechanic always check all the nuts and bolts.





use wheel chocks to prevent movement of rail cars



fix wheel spinner on the rail





wheel spinner height adjustment

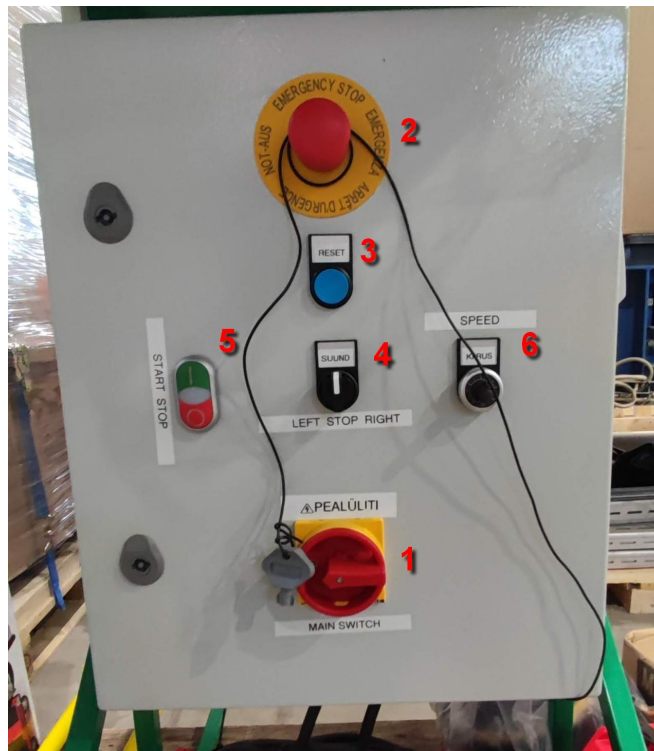


connect wheel spinner with electrical panel box  
using included cables





first test the wheel spinner without heavy load



1. Switch on - main switch
2. Release emergency stop button
3. Press RESET button
4. Select left or right wheel rotation direction
5. Press start (GREEN BUTTON)
6. Rotate SPEED knob to increase or decrease rotation



to power off wheel spinner:

1. Press STOP (RED BUTTON),
2. Turn off main switch
3. Disconnect cables from power source.



Turning process:

NB! For training recommended for machinists to try cut wheels on decommissioned carriages/railcars etc.

1. Use wheel chocks to prevent rail cars movement.
2. To cut rail car wheels, the rail car wheel set first must be lifted with two hydraulic jacks for 15-25mm above rail head.
3. From one side of rail car wheel set place and fix portable wheel lathe 1AK200 COMPACT and from another side - place and fix wheel spinner WRD-380.
4. When starting wheel spinner, first make sure that the friction wheel rotates in the direction required for wheel cut and change if needed.
5. Set the minimum rotation speed of the friction wheel at beginning of railcar wheel rotation and increase speed to desired slowly.  
(the optimal rotation speed is determined experimentally depending of the used turning inserts and railcar wheel defects).

6. Slowly move the tool holder with turning insert to rail car wheel and start cutting process at minimal cutting dept and speed.

7. The turned surface is controlled by a standard profile gauges.

8. After finishing the cutting process you should:

- smoothly reduce the speed of wheelset rotation and turn off the power supply
- smoothly move the tool holder roller away from the wheelset wheel
- smoothly lower the wheelset and remove the hydraulic jacks
- remove the wheel chocks

Any suggestions for improvement are welcome - <https://www.1ak200.com>