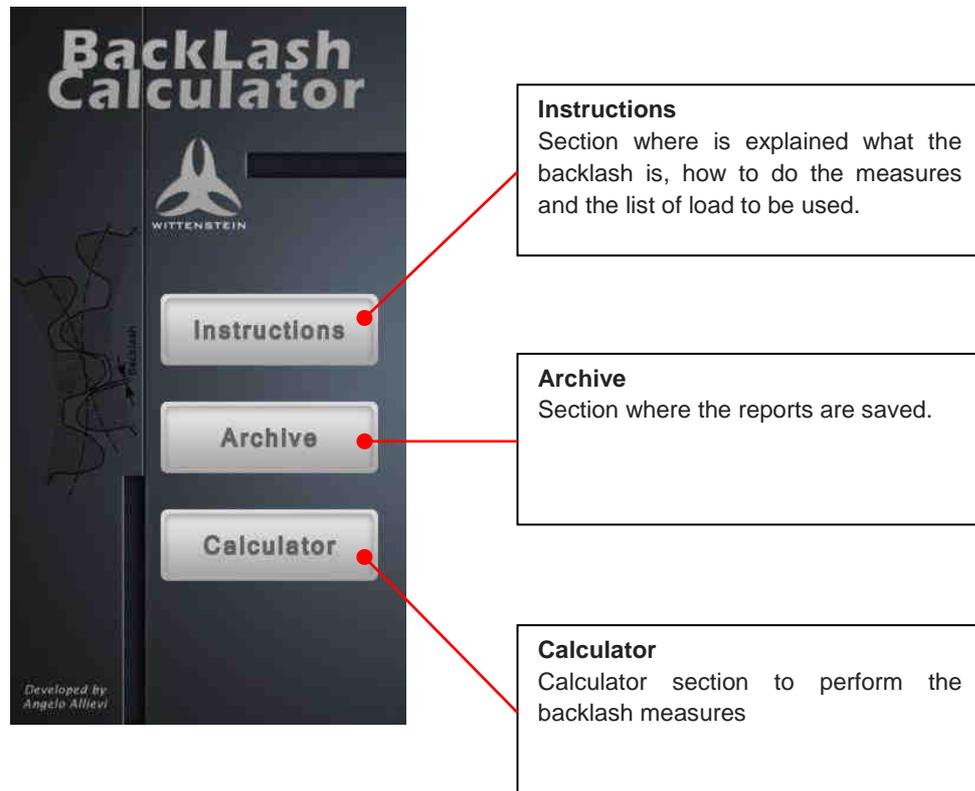


# Backlash calculator instruction manual

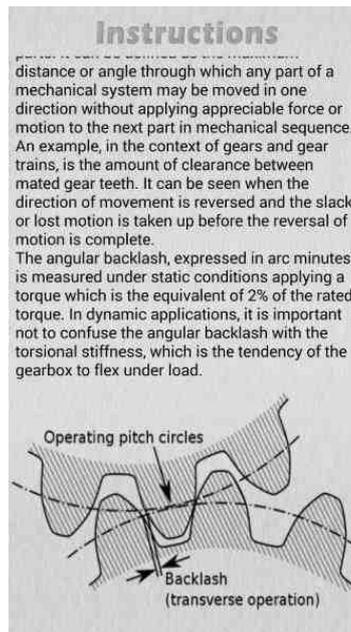
The Backlash calculator app is able to manage the measured backlash of the gearboxes. It provides values to be applied and instruction to perform the measurements, then is possible to store and view each measurement as a graph.

## Main page



Touching one of these buttons the user enters the selected section.

In this section is possible to view information about the backlash and all the information in order to perform the measures.

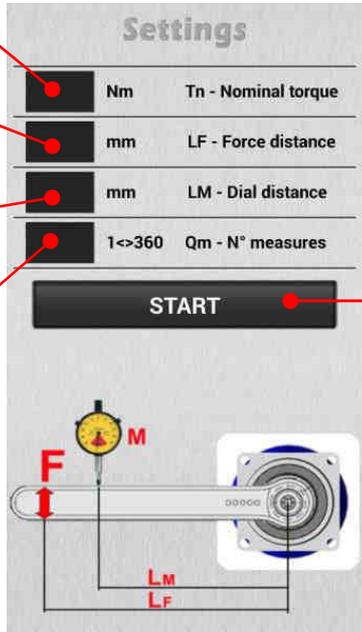


Section

**Calculator**

This section is the control panel of the app, where is possible to set the values and perform the test. On the first page of this section (called Settings) the user have to provide the required values. At the bottom there is an example picture.

- Tn**  
Nominal torque.
- LF**  
Distance where the force is applied
- LM**  
Distance where the user places the dial comparator.
- Qm**  
Quantity of measurements to be done.



**START**  
Touch this button to continue the session and start the measurements. Each values has to be filled before continue.

After the setting operations pressing the **START** button, the user views the measurement section. On this page, in addition to displaying the values to use, the user have to type the values detected during the measurement (in the **M** box, in 1/100 mm);. In real time is possible to see the backlash. Press **NEXT** button to proceed to the next measurement in sequence- The page with a list of measurements will be opened automatically at the end of the measurements.

- F**  
Value of the force to be applied in N or Kg.
- M**  
Input the measures read on the dial comparator (1/100 mm).



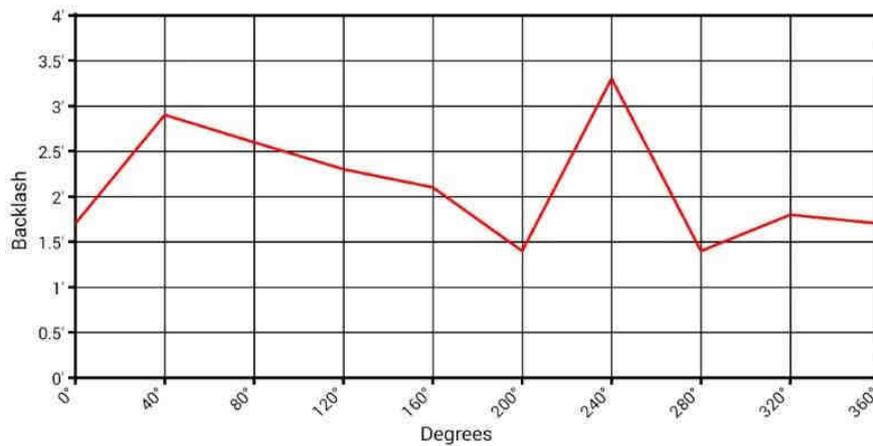
- Qm**  
No. of measurements done, no measurements to be done and corresponding degrees.
- Real time display of the backlash
- NEXT**  
button to switch to the next measurement

when all measurements are performed, the **Measurements list** will be opened automatically. In this window, the user views all the measured values, the graph of the measured backlash, and is also possible to save the datas.

The screenshot shows a window titled "Measurement list" containing a list of measurements and two buttons. A callout box labeled "Measurements list." points to the list. Another callout box labeled "Button to display the graph." points to the "Backlash chart" button. A third callout box labeled "Button to save the data." points to the "Continue" button.

Measurement n°	Angle	Backlash
1	0°	2.1'
2	45°	3.1'
3	90°	1.7'
4	135°	3.6'
5	180°	2.4'
6	225°	1.4'
7	270°	3.3'
8	315°	1.8'
9	360°	1.7'

By pressing the **Backlash chart** button a graph of the measurements will be displayed.



By pressing the **Continue** button the users will access to the saving session.

In the saving session is possible to store the measurement session with some information about the gearbox and its manufacturer.

The file name is the only information necessary to save the session.

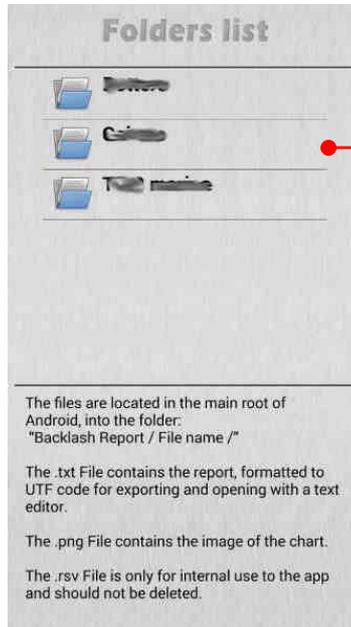
The image shows a vertical form titled "Input data report" with a metallic background. The form contains several input fields: "File name" (with the text "Prova" entered), "Author", "Gearbox type", "Manufacturer", "Cod n°", "Serial n°", and "Year". A red dot on the left side of the "Manufacturer" field is connected by a red line to a white box containing the text "Data input box.". At the bottom of the form is a black button with the word "Save" in yellow. A red dot on the right side of the "Save" button is connected by a red line to a white box containing the text "Button to save all datas.".

By pressing the **Save** button, all the data and graph are saved in the main root of Android, in subfolders and the app goes back to the home page.

Section

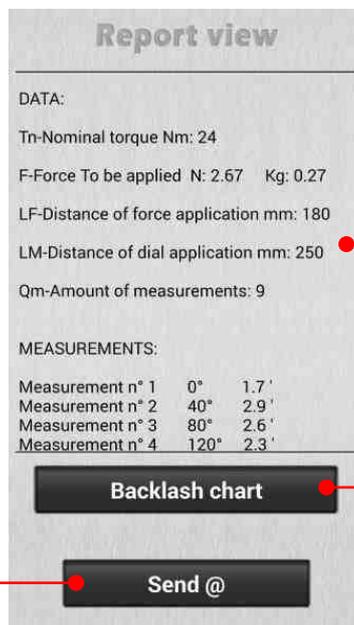


In this section the user accesses the report management with the option to view them and send them by e-mail.



Folder list.

By pressing one of the folders, the user enters the section of **Reports view** where is possible to see graphs and send text files and its graph by email.



Report view.

Button to display the graph.

Button to send the report.

Press the back button to return to the previous page.