

# BRAKE DISCS: REPLACE OR REPAIR?

By testing the TD502 on-the-truck disc lathe we, as “Comec” company, carried out a detailed study in collaboration with our english partner Dynastat trying to answer the difficult question, that is, if it is more economic advantageous to replace or repair a brake disc.

Referring to approximate values of the average market prices, we tried to estimate the costs of a car repair shop when it has to replace the brake discs on one axle of a truck. Than, we calculated the costs that are to be incurred in case of lathing discs, which are mounted directly on the axle, by using the Comec



TD502

TD502 on-the-truck disc lathe. The results of this study surprised us but also other experts. Now we are going to analyze the data we obtained trying to come to a conclusion. Data are provided in the table and graph below.

	DISC REPLACEMENT			DISC LATHING		
	Quantity	Unit cost*	Total	Quantity	Unit cost*	Total
Working hours	5	€ 40,00	€ 200,00	1	€ 40,00	€ 40,00
Original discs	2	€ 125,00	€ 250,00	0	€ 0,00	€ 0,00
Gasket	2	€ 34,00	€ 68,00	0	€ 0,00	€ 0,00
Nuts and screws	1	€ 60,00	€ 60,00	0	€ 0,00	€ 0,00
<b>Total</b>			<b>€ 578,00</b>			<b>€ 40,00</b>

\* The amounts are referred to an approximative average of market values



The histograms graph above clearly shows costs and savings between the two types of operation

The graph shows clearly that lathing is extremely cheaper than replacing. As a matter of fact, this can mean a saving of up to 93%, as shown in the graph. If we analyze in detail the single items, the

two most surprising data are the saving in the purchase of new discs and especially the considerable reduction in working time. The reason is because both disassembly and reassembly are no more necessary.

### **THE ADVANTAGE OF LATHING DURING PERIODIC VEHICLE INSPECTION**

Another test we carried out refers to the change of braking pads without replacing the disc. The two variables taken into account are therefore the replacement of the pads mounted on used discs, reconditioned or not.

Often, especially during periodic vehicle inspections, some mechanics tend to replace only the brake pads without caring about the disc condition. Now we analyze in detail the advantages and disadvantages of both operations.

<b>BRAKE PADS</b>	
<i>Used discs</i>	<i>Rectified discs</i>
• Defective match	• Perfect match
• Limited braking efficiency	• Excellent braking efficiency
• Tempered spots	• Tempered spots removal
• Cracks signs	• Vibration and noise elimination
• Short life of brake pads	• Long life of brake pads

It was also proved that, during the periodic vehicle inspection, new pads on old discs rarely pass the instantaneous braking test,

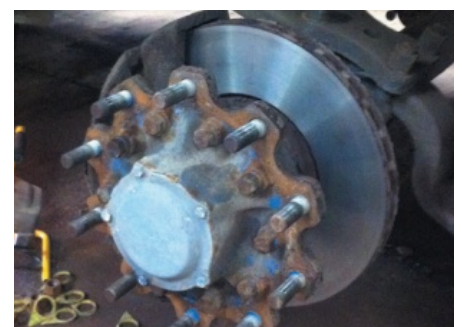
while new pads on rectified discs usually pass the test every time.



*TD502 during the disc lathing*



*Brake disc before lathing*



*Brake disc after lathing*

Thanks to the comparison of objective data, we believe we clarify the pros and cons of lathing a disc rather than replacing it. If you would like to let us know your opinion about

this issue or share your personal experience with us, do not hesitate to email us at [comec@comecpn.com](mailto:comec@comecpn.com) or visit our website [www.comecpn.com](http://www.comecpn.com).