

50 years of experience
Brake servicing machines
for HD vehicles and cars



HUNGER



E 328

*Machining of
commercial vehicle brake
discs with standard
or hub reduction axles*



Technical specifications

Max. workpiece-Ø	mm	500 / 525 (SA)
Max. brake disc-Ø	mm	150 – 500
Max. brake disc thickness	mm	65
Speed range (50 Hz)	rpm	50
(60 Hz)	rpm	60
Adjustable feed	mm / r	0.10 – 0.30
Main motor	kW	1.5
Supply voltage	V – 3ph	230 / 400 (50 Hz) 265 / 460 (60 Hz)
Dimensions LxW	mm	1,100 x 1,100
Weight incl. standard acc.	kg	200

Special voltages on request.

Machining of commercial vehicle brake discs with standard or hub reduction axles directly on the vehicle.

E 328



The E 328 is our answer to the rapid proliferation of brake discs on commercial vehicles.

The machining of the brake discs while they are mounted on the vehicle avoids the high labour cost of their removal and refitting. This saving is of special significance on hub reduction axles. Time and money can also be saved on warranty work. Skimming of the brake disc improves the frictional grip between brake disc and brake pad and hence increases pad and disc life.

The brake discs are turned on both sides in one operation. The automatic feed is steplessly variable. It is incremental using the well known HUNGER "intermittent" system.

The E 328 fits directly on the 10 hole hub (Euro axle). For other dimensions intermediate flanges are available.

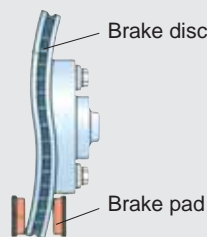
The machine is firmly attached to a lifting and mounting trolley which can be set to suit the height and inclination of the vehicle axle.

The electrical feed limit switch for guardless operation is standard as well as the emergency stop button.

The machine is rigidly supported and therefore does not rely in any way on the quality of the vehicle hub bearings. Precision machining is the result.

Problem 1

Runout of the
brake disc



Problem 2

Disc thickness
variation
(D.T.V.)



Problem 3

Surface
roughness
(Rz)



Why resurfacing discs?

Turning the brake disc on the truck axle cures vibration problems, gets down warranty costs and increases satisfied customers and thus shop profits. Moreover the resurfacing increases the braking performance, improves the frictional grip between brake disc and brake pad and hence increases pad and disc life up to 30 %. In addition the workshop saves purchasing costs for new discs and the de- and remounting labor which is particularly with changing the disc on a hub reduction axle.

What is causing vibration?

Manufacturing tolerances between disc and hub and thermal distortion of the new discs due to high temperatures, generated during braking, are causing lateral runout in the brake disc which leads to pulsating and shaking of brake pedal and steering wheel.

Profitability

The exchange of brake discs is much more expensive than the machining of brake discs directly on the axle of the vehicle. Thus investment and operating (tools, electricity, space maintenance) are equalized after few vehicles! The short time of returning your investment (ROI) results in huge annual profits with only few jobs a week.

The following advantages have also to be noted:

- Advantages in the competition through flexible prices and shorter bay time (means downtime of the truck/bus).
- Less claims and warranty agreements.
- Better utilisation of the whole workshop through more potential customers.

Corrosion, Runout and the disc quality are responsible for thickness variations within the disc. The disc thickness variation (DTV) is very sensitive and exceeding DTV results in brake vibrations.

Bad surface finish of the disc is causing an audible noise problem due to vibrating brake components.

Remachining

directly on the axle relieves stresses off the disc and hence provides a permanent and certain cure for brake disc vibration problems. The manufacturing tolerances are compensated as well as the thickness variations within the brake disc.

The surface finish of the cut meets and exceeds the surface quality specifications of the vehicle manufacturers. The remachining is recommended to be a standard procedure with every

E 328/S1



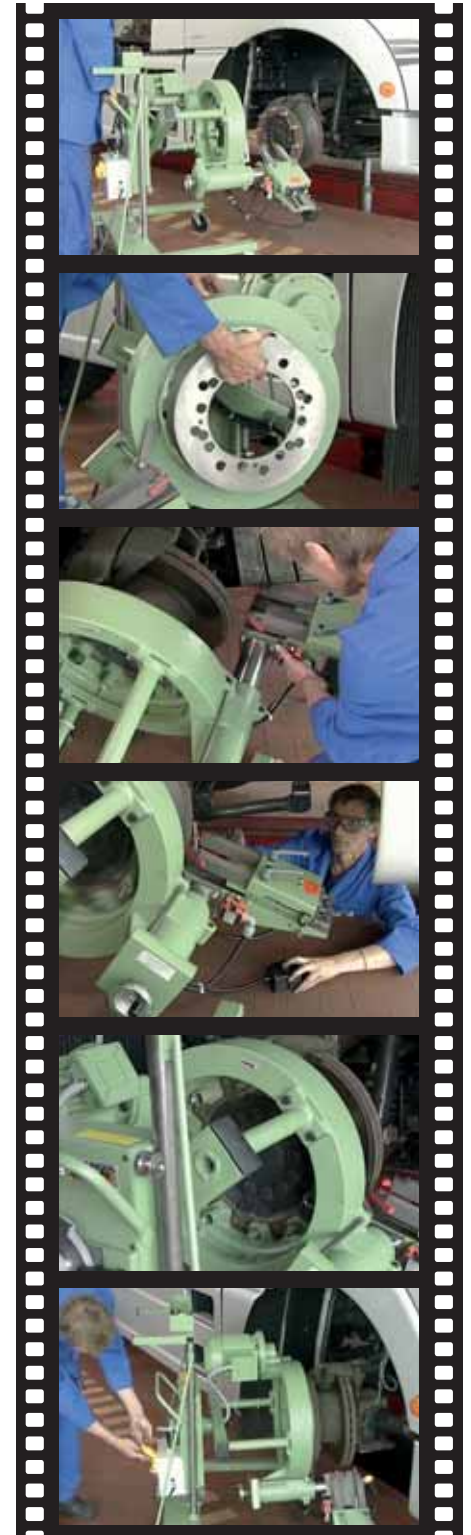
Machine with special high trolley up to 1500 mm for reconditioning brake discs on a column lift.

replacement of the brake pads in order to optimize the disc to pad contact. This results in increasing brake performance, safety and brake components life.

And ...

... in addition the workshop save purchasing costs for new discs and the de- and remounting labor which is particularly high with changing the disc on a hub reduction axle. An ROI calculation is available on demand.

Many truck manufacturers have recognized the high saving potentials during the warranty period and further on and thus makes the turning of brake discs mandatory for the workshop to get a warranty compensation.



Above some screenshots from our E 328 operation video. For a free copy please contact us.

HUNGER machines enjoy a worldwide reputation and recommendation by all leading vehicle manufacturers.

**More than 40 experienced agencies
and sole distributors throughout the world ...**



*... are guaranteeing skilled and fast response,
advise and support for our products.*

Please contact us for addresses of our partners worldwide!

History

The HUNGER company name has existed for more than 90 years. In 1922 Ludwig Hunger started a factory in Munich to produce precision cutting tools (Hunger reamers). Due to the lack of space in the original factory, a separate production plant and subsidiary was planned in Kaufering in 1965, and on May 22, 1967 production started there.

In 1970, this subsidiary was changed into an independent company under the direction of Manfred Hunger as CEO and associate. In 1982 the company moved into the present factory location at Ludwig Hunger Strasse 1 in Kaufering. Since 1995, his two sons Markus and Thomas Hunger – helped by their team in the daily business – are responsible for the company.



- Long-standing experience in brake service equipment
- Design, production, sale and after-sales service at the same location
- 6,000 square meters of production surface in Bavaria near Munich
- ISO certified quality management

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