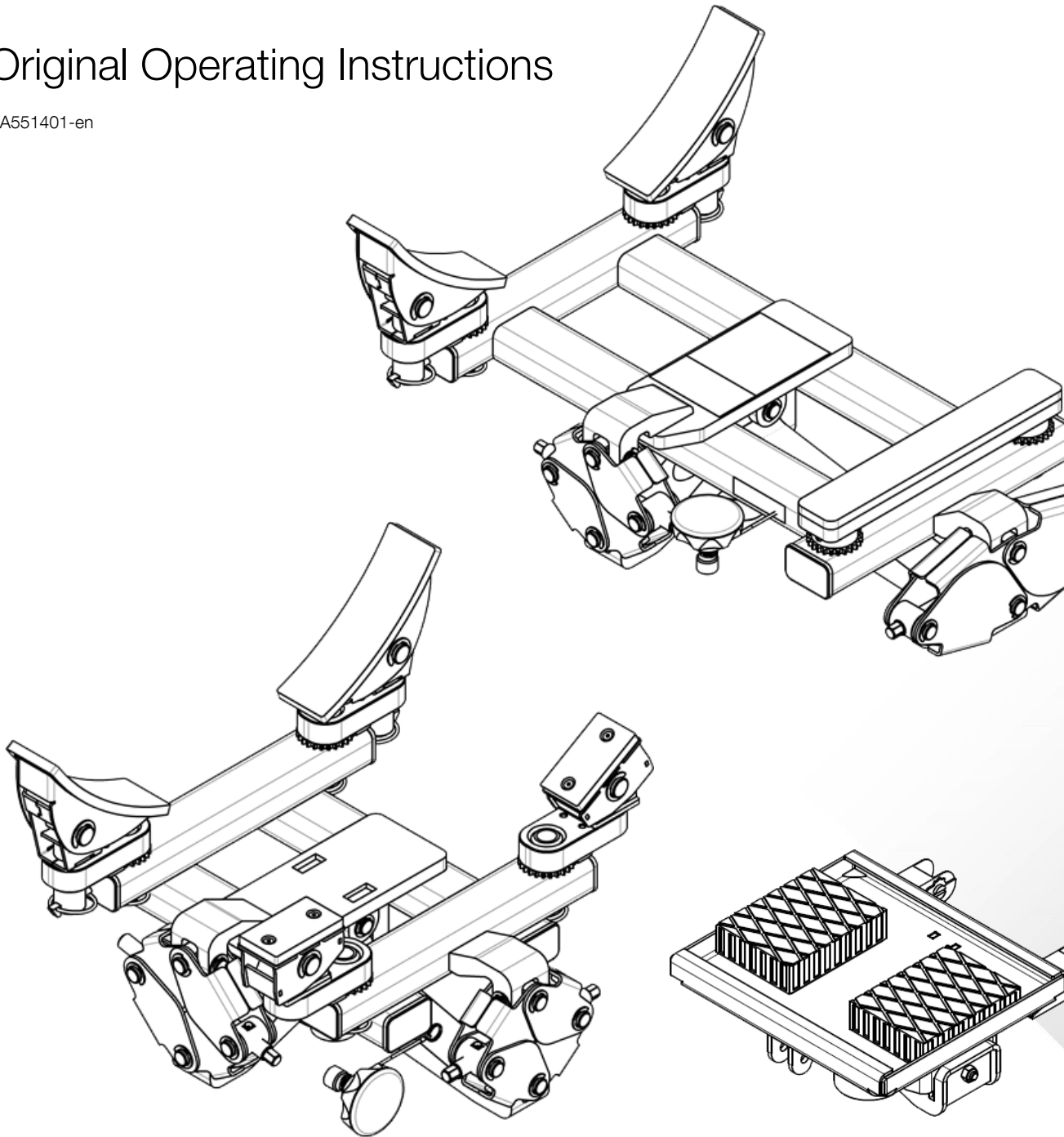


GMT 800/1000 | GP 500/1000

Gearbox Mounting Tools | Gearbox Plates

Original Operating Instructions

BA551401-en



BA551401-en
2019-11-11

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The contents of this edition have been checked with great care. However, errors cannot be fully excluded. Subject to technical change without notice.

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Contents

1	Safety	5
1.1	Symbols and Signal Words	5
1.1.1	Personal Injury.....	5
1.1.2	Property Damage.....	5
1.1.3	Information.....	5
1.2	Intended Use	6
1.3	Inappropriate Use.....	6
1.4	Requirements on Operating and Service Personnel	6
1.5	Safety Instructions for Operation.....	7
1.6	What to Do in the Event of Defects or Malfunctions	8
2	Description	9
2.1	Design	9
2.2	Accessories	11
2.3	Permissible Combinations of Accessories.....	13
2.4	Specifications.....	13
2.5	Sample Nameplate.....	14
3	Transport and Storage	14
4	Installation and Initial Operation	15
4.1	Requirements for the Pit Jack.....	15
4.2	Permissible Support Diameters	15
4.3	Installation (for GMT 800/1000 only)	15
5	Operation	16
5.1	Important User Information.....	16
6	Maintenance	17
6.1	Annual Inspection.....	17
6.2	Maintenance by the Operator	17
6.3	Care Instructions	18
6.4	Spare Parts.....	18
7	Service Lifetime	19
8	Dismantling	19
9	Disposal	19
10	Contents of the Declaration of Conformity	19

1 Safety

Thoroughly read this manual before operating the equipment and comply with the instructions. Always display the manual in a conspicuous location.

Personal injury and property damage incurred due to non-compliance with these safety instructions are not covered by the product liability regulations.

1.1 Symbols and Signal Words

1.1.1 Personal Injury



DANGER

indicates an immediate hazard which, if not avoided, will result in death or severe personal injury.



WARNING

indicates a potential hazard which, if not avoided, could result in death or severe personal injury.



CAUTION

indicates a potential hazard which, if not avoided, could result in moderate or minor personal injury.

1.1.2 Property Damage

NOTICE

indicates a potentially harmful situation which, if not avoided, could result in damage to the equipment or surrounding objects.

1.1.3 Information



indicates important information notes.

1.2 Intended Use

The gearbox mounting tool and the gear plates are only intended for use in commercial car workshops. They shall only be used in conjunction with appropriate pit jacks (a combination according to DIN EN 1494), with original accessories and for gears which can be supported safely without risk of slipping. Pay attention to maximum load capacity according to rating plate.

1.3 Inappropriate Use



WARNING

Use other than the intended constitutes improper use, e.g.:

- Riding on the tool or on the lifted load
- Uptake of other vehicle components
- Use for other lifting work

Use on sloping or uneven ground surfaces, which can cause tipping is prohibited.

Use in potentially explosive areas and use outdoors is prohibited. Use in wet or flammable areas is only permitted with the express written permission of the manufacturer.

The tool may not be modified without the express written permission of the manufacturer. In case of non-compliance, the declaration of conformity becomes invalid.

1.4 Requirements on Operating and Service Personnel



WARNING

All persons employed in the operation, maintenance, installation, removal and disposal of the device must

- be at least 18 years old,
 - be mentally and physically suited for these activities,
 - be demonstrably trained and instructed in writing,
 - have read and understood the operating instructions, especially the instructions what to do in the event of defects or malfunctions,
 - be on record as having been instructed in safety guidelines,
 - have practical experience in working with vehicle lifts and the hazards inherent in such equipment.
-

1.5 Safety Instructions for Operation



WARNING

- Transport only by trained staff using appropriate special tools.
- Pay attention to reference on packaging about potential hazards at installation or about correct use.
- This tool may only be operated by trained persons above the age of 18 years.
- The owner is responsible for ensuring that the operator is trained and familiar with the operating instructions.
- The operator must check the safety equipment prior to use.
- The load capacity specified on the rating plate may not be exceeded.
- No persons may be in the danger zone when adjusting the tool.
- The gear may only be lifted at the centre of gravity.
- Check that the gear has been lifted safely and is secured, immediately after lifting.
- The composite of gear, tool and jack must be observed by the operator during the process of moving.
- To ensure a secure stand, the tool must always be gripped centrally with the lift and checked for stability during operation.
- Riding on the tool or on the load is prohibited.
- If the danger zone cannot be overseen entirely by the operator, the area must be observed by a second trained person.
- During the movement operation, the area where tool and load are being moved, must be kept clear from persons or objects.
- Upon completion of the swiveling process, aids (e.g. ratchet) must be put down in a suitable place.
- The gear may only be moved when it has been secured and cannot slip.
- The gear must be positioned on the tool in such a way, that unintended changes in position are prevented.
- The composite of gear, tools and jack may only be shifted when lowered and with both hands to suitable positions. If this is not possible by one person, a second person must be called.
- The tool may not be made to swing on purpose.
- Once operation of tool is completed, the tool must be removed from the lift.
- The tool may only be assembled or dismantled without the loads.
- Fault finding and rectification is permitted only by authorised personnel.

1.6 What to Do in the Event of Defects or Malfunctions



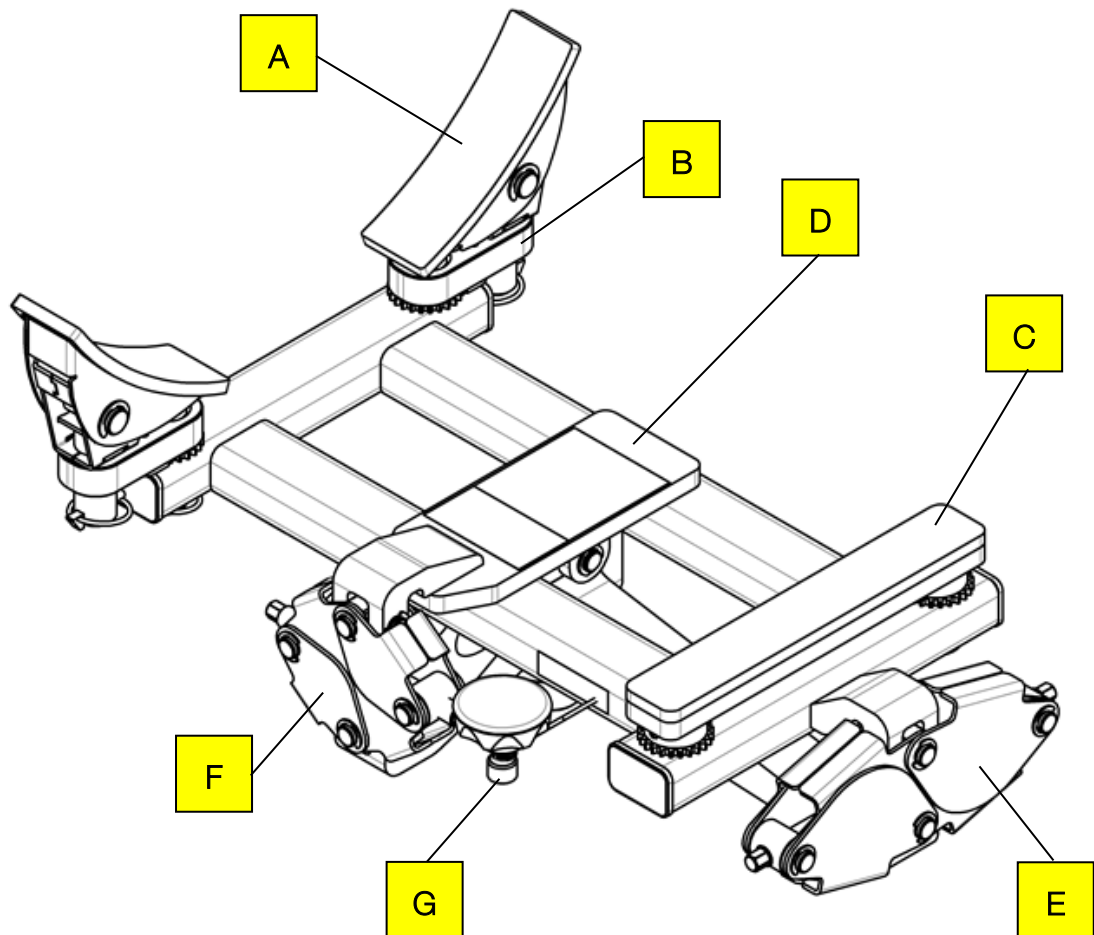
WARNING

- If defects occur, such as the lift raising and lowering itself on its own or distortion of the supporting components, immediately lower the tool or provide support.
 - Turn off the main switch and secure to prevent unauthorised use. Contact service.
-

2 Description

2.1 Design

GMT 1000



A Form support

B Swivel support

C Bridge support

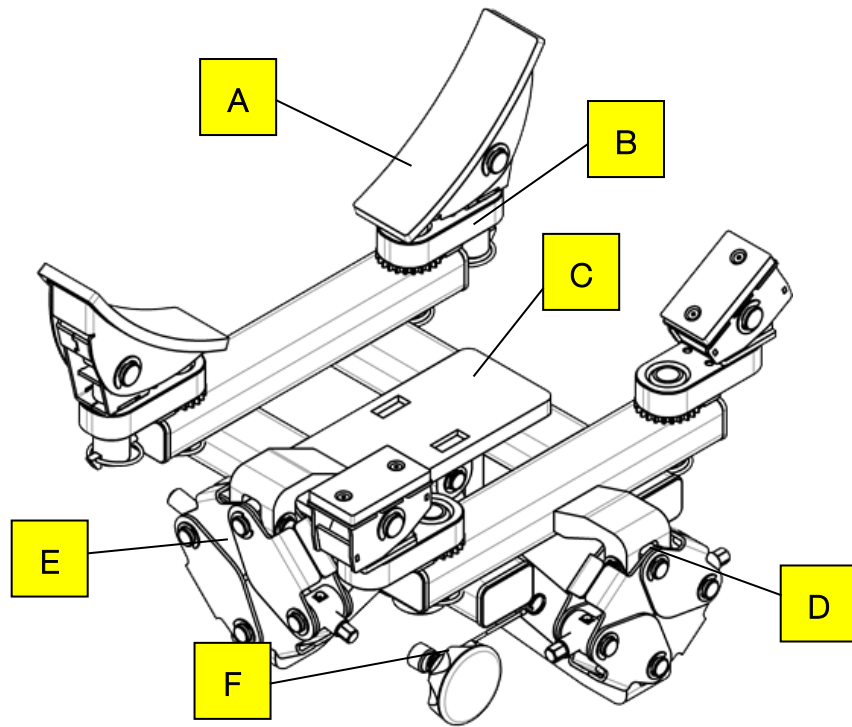
D Main carrier

E Scissors 0...30°

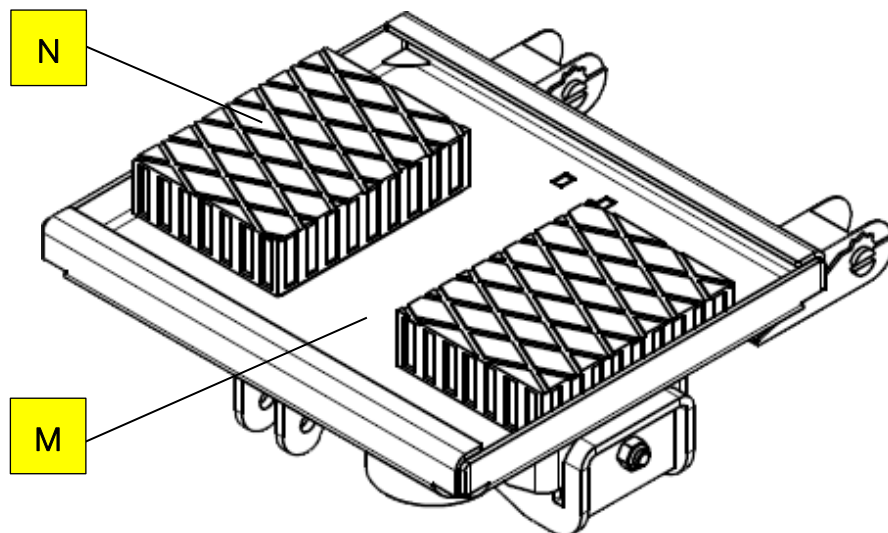
F Scissors ±15°

G Star grip, removable

GMT 800



GP 500/1000



A Semicircular flex support

B Swivel support

C Main carrier

D Scissors $\pm 10^\circ$

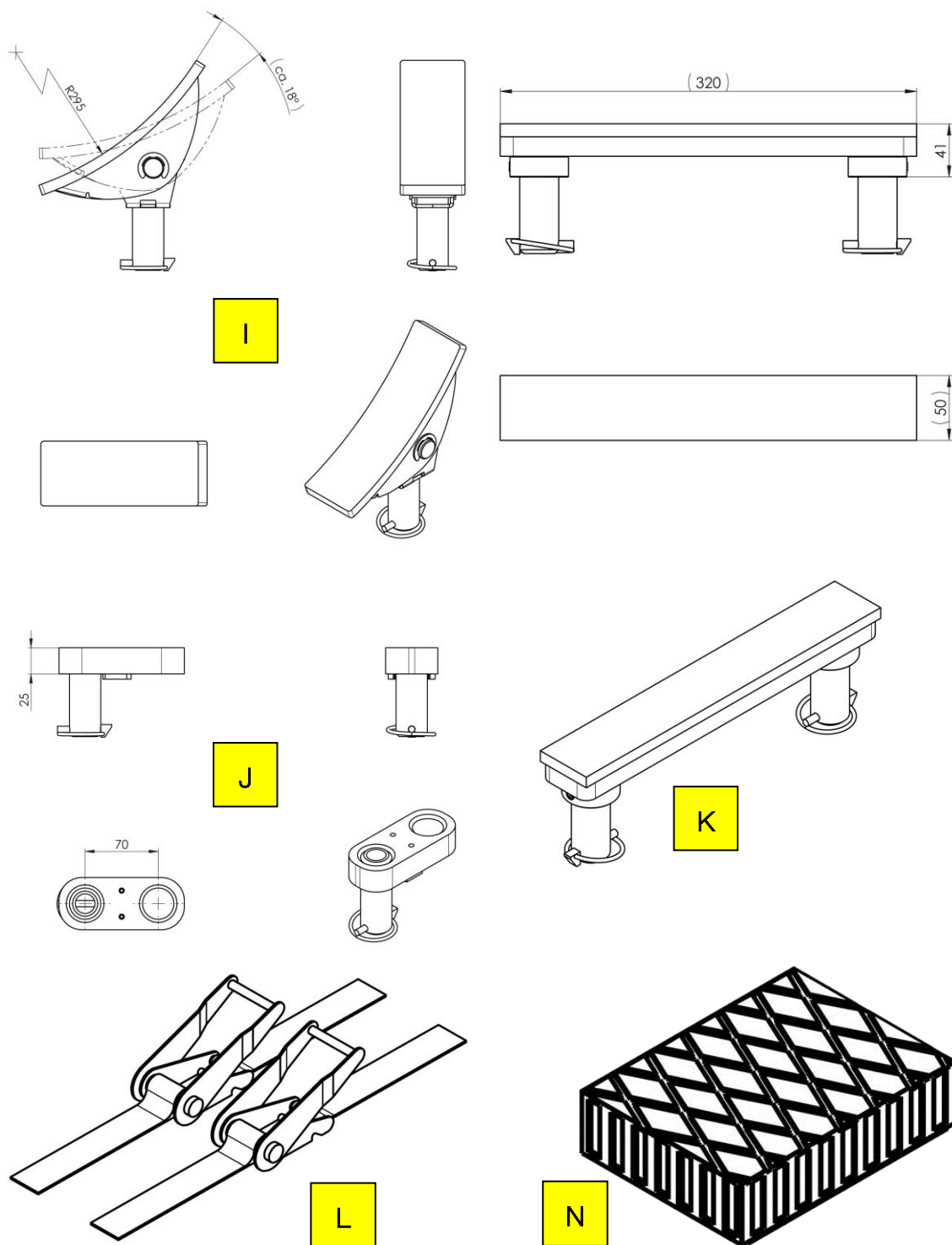
E Scissors $\pm 15^\circ$

F Star grip, removable

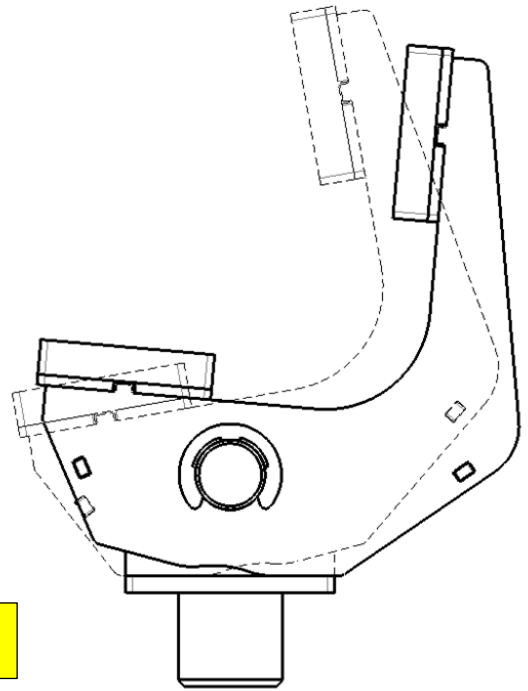
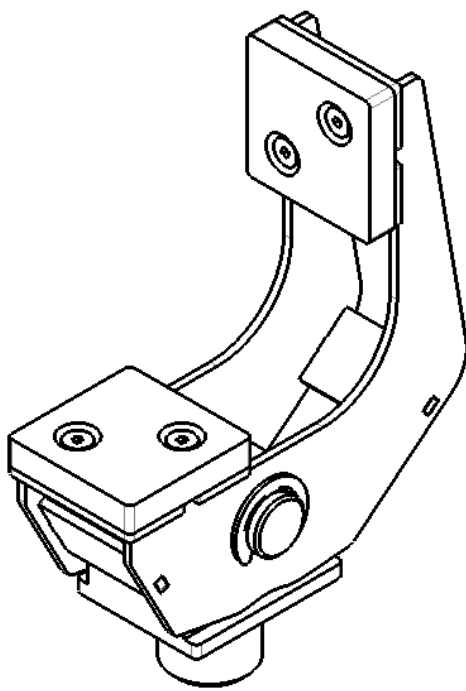
M Gear plate

N Magnetic rubber pad

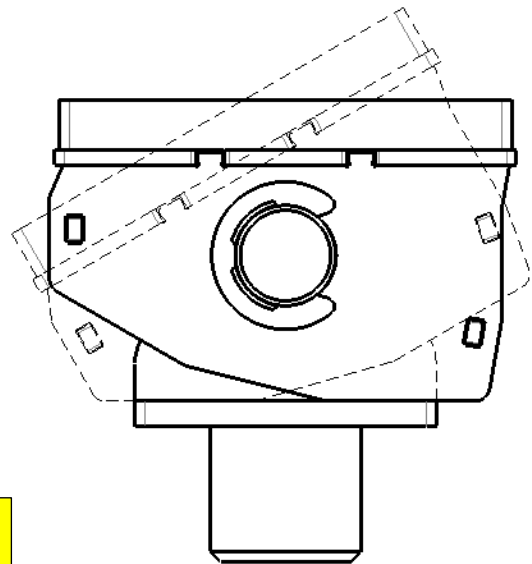
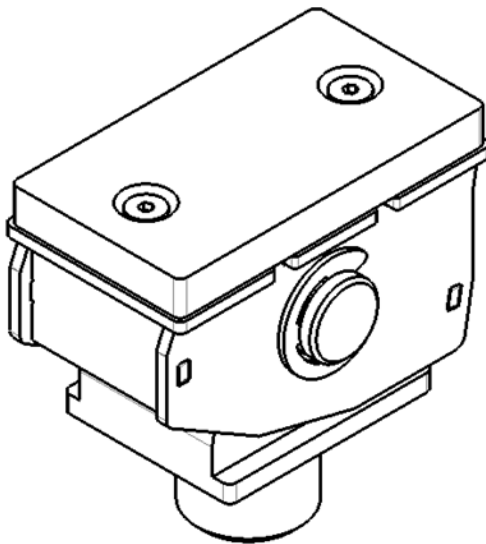
2.2 Accessories



- I Semicircular flex support (4 pcs)
- J Swivel support (4 pcs)
- K Bridge support (2 pcs)
- N Magnetic rubber pad (2 pcs; for GP only)
- L Lashing strap (2 pcs)



O Angled clamp support (for GMT only): tilt angle -5° ... 10°



P Flat support (for GMT only): tilt angle up to 30°

2.3 Permissible Combinations of Accessories

	GMT 800	GMT 1000	GP 500	GP 1000
Magnetic rubber pad	no	no	yes	yes
Swivel support	yes	yes	no	no
Bridge support	no	yes	no	no
Semicircular flex support	yes	yes	no	no
Flat support	yes	up to 800 kg	no	no
Angled clamp support	yes	up to 800 kg	no	no
Lashing strap	yes	yes	yes	yes

2.4 Specifications

	GMT 800	GMT 1000	GP 500	GP 1000
Load capacity [kg]	800	1000	500	1000
Max. dimensions with form supports [mm]	548x520x391	760x510x330	352x307x178	542x385x170
Dimensions without accessories [mm]	461x381x211	663x376x199	352x307x168	542x385x160
Net weight [kg]	34	47	18.5	24.5
Net weight without accessories [kg]	27	31	---	---
Working temperature range [° C]	0...40			
Static coefficient	1.5			

2.5 Sample Nameplate

MAHA Maschinenbau Haldenwang GmbH & Co. KG	
	Hoyen 20 87490 Haldenwang Germany Phone +49 8374 585 0 Fax +49 8374 585 497 Mail maha@maha.de Web www.maha.de
 Made in Germany	
GEARBOX MOUNTING TOOL	
Serial No./Year of Production:	
Project :	
Model and Version :	
Load Capacity :	
Net Weight :	

3 Transport and Storage

NOTICE

Check package to ensure it is complete, in accordance with the order confirmation. Report any transport damage to the carrier immediately.

During loading, unloading and transport always use suitable lifting equipment, material handling equipment (e.g. cranes, forklifts, etc.) and the right load handling attachments and slings. Always ensure that the parts to be transported are suspended or loaded properly so that they cannot fall, taking into account size, weight and the centre of gravity.

Store the packages in a covered area, protected from direct sunlight, at a low humidity and with temperatures between 0...+40 °C (32...104 °F). Do not stack packages.

When unpacking, take care to avoid any possibility of injury or damage. Keep at a safe distance when opening the package strapping, do not allow any parts to fall out.

4 Installation and Initial Operation

4.1 Requirements for the Pit Jack

This tool may only be fully used, if the pit jack meets the following requirements:

- Suitable for eccentric loading
- Sufficient tilting limit
- DIN EN 1494

4.2 Permissible Support Diameters

	GP 500	GP 1000	GMT 800	GMT 1000
Inside Ø [mm]	30	45	45	45
Outside Ø [mm]	---	---	70, 80	70

NOTICE

Diverging support diameters are expressly not permissible!

4.3 Installation (for GMT 800/1000 only)

- 1 Mount main support on a suitable pit jack. Make sure that the tool is fully inserted in the ram at all times.
- 2 Arrange the supports (semicircular flex support, bridge support, angled clamp support, flat support, swivel support) according to the load to be lifted (see permissible sample arrangement under section “Description > Design”).

NOTICE

In the case of a combination of the semicircular flex support or the bridge support with the swivel support, the load must be lifted with an adjusting collar in order to avoid collisions (relevant for GMT 1000 only).

5 Operation

5.1 Important User Information



CAUTION

Danger of crushing



- when inserting the supports
- when moving the tool between the scissor arms
- when the star grip or the pneumatic ratchet collide with components during the turning process
- when lowering between the tool and jack

- 1 A visual inspection for operational safety must be performed prior to each use of the tool. Check the gearbox mounting tool, all supports, swivel adapters, lashing straps and safety pins.
- 2 Before transporting the tool to the pit jack, remove the supports and swivel adapters. Two persons or suitable aids are required for transport.
- 3 Accessories (supports etc.) must be secured against falling out.
- 4 Position pit jack and tool under the gearbox. When doing so, make sure that the gearbox is always lifted above the pit jack ram at the centre of gravity and (when using the GMT 800/1000) that the centre of gravity is not higher than 350 mm above the reference plate (= the marked plate on the main carrier / end of arrow).
- 5 Adjust the swivel / scissors mechanism according to the inclination of the gearbox.



Approved types of drives for the swiveling /scissors mechanism:

a) Star grip, b) Wrench, c) Ratchet, d) Pneumatic ratchet with two-hand control: max. speed 200 rpm, max. torque 80 Nm, wrench insert size 12 (observe safety instructions for pneumatic ratchet; ear protection may be required).

- 6 Bring the tool to the gearbox. If necessary, the inclination can be fine tuned.
- 7 Secure the gearbox that it cannot slip. When using lashing straps, position these over the gearbox and through the eyelets at the bottom of the tool. Make sure that the gearbox, cables and hoses etc. are not damaged.
- 8 Dismantle gearbox.
- 9 Reinstall in reverse order.

6 Maintenance

6.1 Annual Inspection



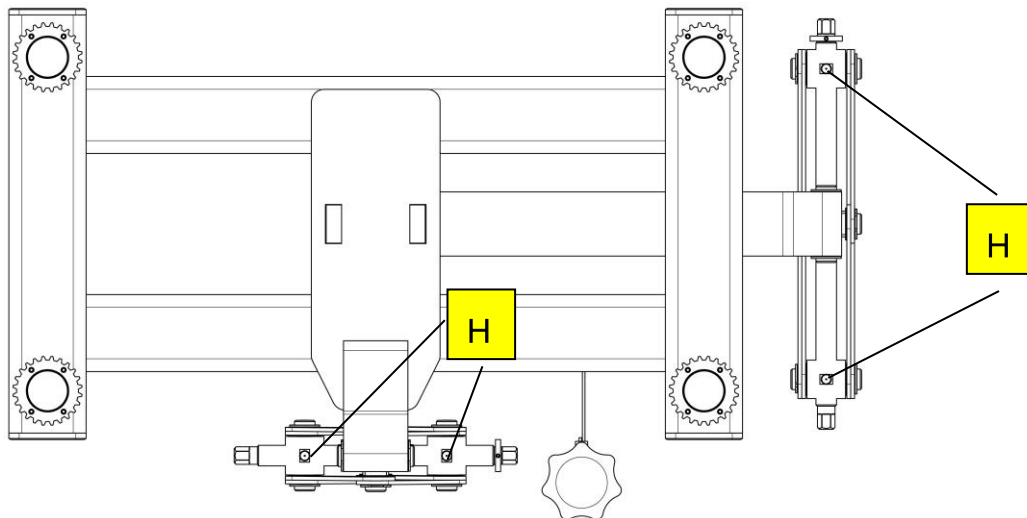
- The maintenance interval prescribed by the manufacturer is **12 (twelve) months**. This maintenance interval refers to normal workshop usage. If the equipment is used more frequently or under severe operating conditions (e.g. outdoors), the interval must be reduced accordingly.



- Maintenance work shall be done only by authorized and trained service technicians provided by the manufacturer, licensed dealers or service partners.
- In case of non-compliance the manufacturer's warranty becomes void.

6.2 Maintenance by the Operator

- Clean gearbox mounting tool / gearbox plate regularly, check for wear and damage.
- Grease the GMT 800/1000 via the lubricating nipples (H) on the main carrier.



6.3 Care Instructions

NOTICE

Regular care and maintenance is the key condition for functionality and long life expectancy of the equipment.

- Periodically clean the equipment and treat it with a care product.
 - Repair damage to the paintwork immediately to prevent corrosion.
 - Do not use caustic cleaning agents or high pressure and steam jet cleaners to avoid equipment damage.
-

6.4 Spare Parts

To ensure safe and reliable operation, only use original spare parts supplied by the equipment manufacturer.

7 Service Lifetime

In its standard version, this product is designed for 22,000 load cycles based on EN 1493. The maximum period of normal use in relation to the possible product life expectancy shall be evaluated and scheduled by a qualified person during the annual safety inspection.

8 Dismantling

Dismantling occurs in reverse order to assembly.

9 Disposal

If you want to dispose of the equipment, please contact your MAHA dealer or the following address, indicating equipment type, date of purchase and serial number:

MAHA Maschinenbau Haldenwang GmbH & Co. KG
Hoyen 20 | 87490 Haldenwang | Germany

Phone: +49 (0) 8374 585 0

Fax: +49 (0) 8374 585 500

Email: info@maha.de

Alternatively, you may take the equipment to a specialised waste management plant to ensure that all components and operating liquids are properly disposed of.

10 Contents of the Declaration of Conformity

Model: GMT 800/1000 / GP 500/1000

Designation: Gearbox Mounting Tool; Rated Load Capacity 800/1000 kg
Gearbox Plate; Rated Load Capacity 500/1000 kg

Directives: 2006/42/EC

Standards: DIN EN 1494