

**faucheuse
rotative portée
trois points**

**3-point linkage
disc mower**

K28
SOMECA FIAT

**Operation
Maintenance
and
Parts**

Translated from 3 French-language manuals to help others set up and maintain these old mowers. Formatting mostly follows the original manuals, which didn't use sentence case for some headings and left-aligned some.

I'm looking for details of the hydraulic lift mechanism (page 15) and the special tool set (page 27). If you have these items available for me to measure, copy or buy, then please contact me at britton.K28@gmail.com although please replace K28 with john.d

[Square brackets in the text denote additions by me based on experience servicing one of this model of mower.]

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OPERATING MANUAL

introduction

The K28 three-point mounted rotary mower (Fig. 1) consists of three main units:

- a support frame;
- a bar body;
- the transmission

- the frame (1), compatible with any three-point hydraulic hitch, contains the strut (2), the compensating spring (3) and the suspension system (4) which keeps the bar body horizontal when lifting,
- the bar body (5) incorporating a right-angle gearbox, carries the four discs (6) each fitted with a blade (7), and various accessories such as deflectors and cutter shoes;
- the discs are driven by a power take-off shaft with two universal joints, driving a pulley (8) which transfers the power by three v-belts to the driven pulley (9) on the bar gearbox whose input shaft turns at 1250 rpm. This input shaft drives each disc separately by means of a secondary shaft and bevel gears. The gearbox is also a speed increaser and oil reservoir.

Note that the K28 mower is equipped with several safeguards protecting the cutting parts, the main ones of which are listed in the chapter "Main features"

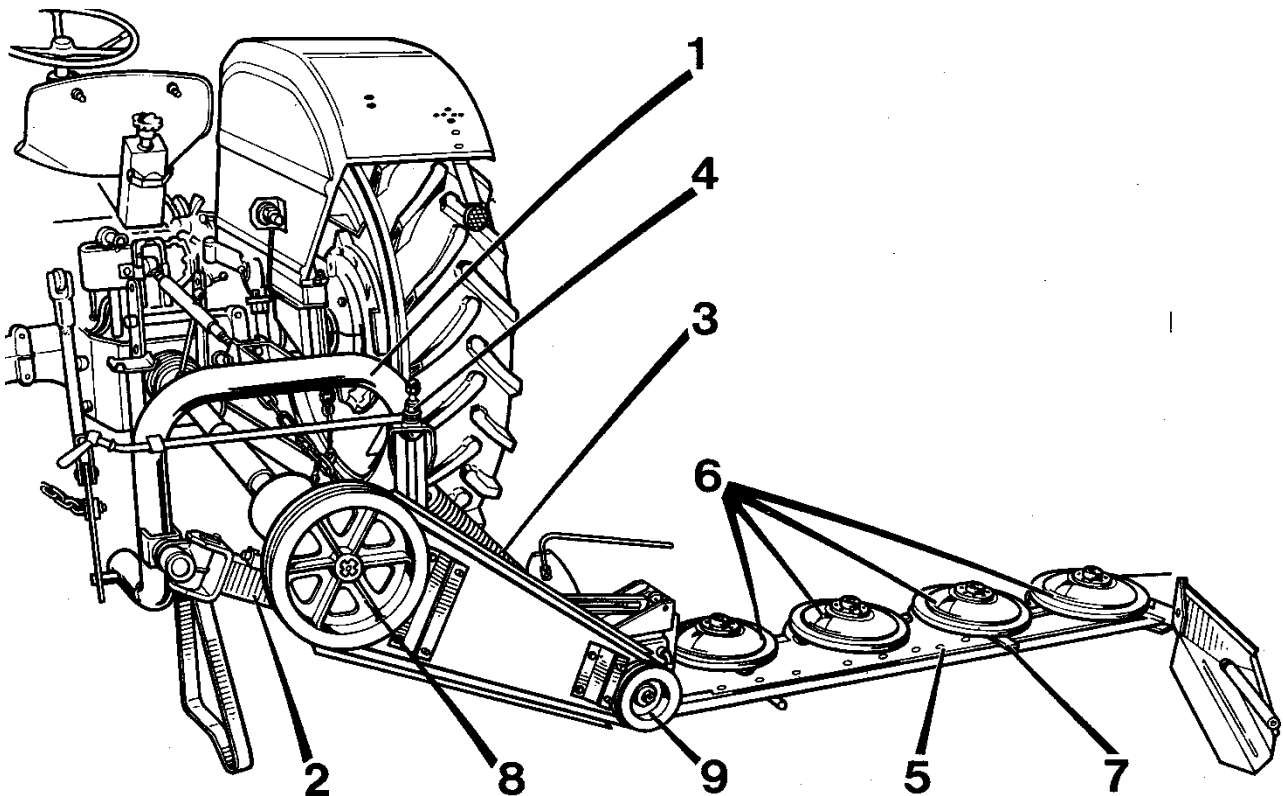


FIG. 1

1. main features

dimensions

Overall length	3.05 m
Overall width (without power take-off)	0.7 m
Overall height (horizontal bar)	0.86 m
Weight	250 kg
Cutting width	1.65 m
Inclination of the bar relative to the ground	-20° to +45°
Lubricant capacity	4.7 l

transmission and frame

Two universal joint cardan drive shaft

Right-angle transmission driven by three trapezoidal belts

Discs powered by the right-angle transmission, via four shafts and bevel gear sets.

Support frame, with bar lifting device, adaptable to any tractor.

Frame articulation pins mounted on nylon bushings.

Sealed bar body incorporating the right-angle transmission.

Bar body shafts mounted on pre-lubricated bearings or in an oil bath

Number of discs	4
Number of blades	4 [8 optional]
Height of the blades above the ground (bar parallel to the ground)	60 mm
Disc rotational speed (PTO at 540 rpm)	3460 rpm
Blade tip cutting speed	83 m/s

safety features

- breakaway spring latch allowing the bar body to swing back when it encounters an obstacle;
- pivoting of the blades when they encounter a foreign body;
- lock to secure the bar to the strut when the when the mower is in transport position

additional equipment

- chain to limit the lowering of the 3 pt link arms;
- 'A' frame for supporting the mower on the ground and for raising the bar to the transport position.

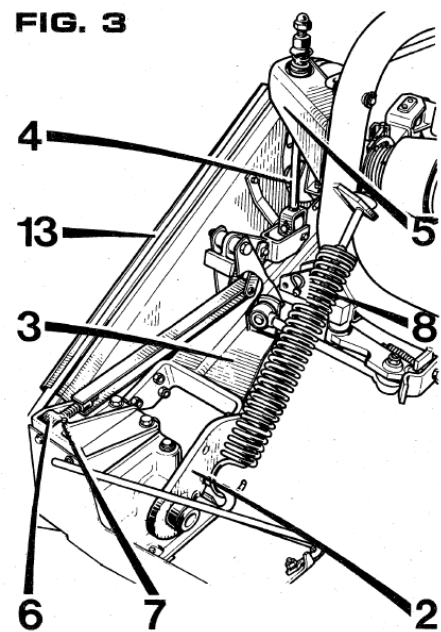
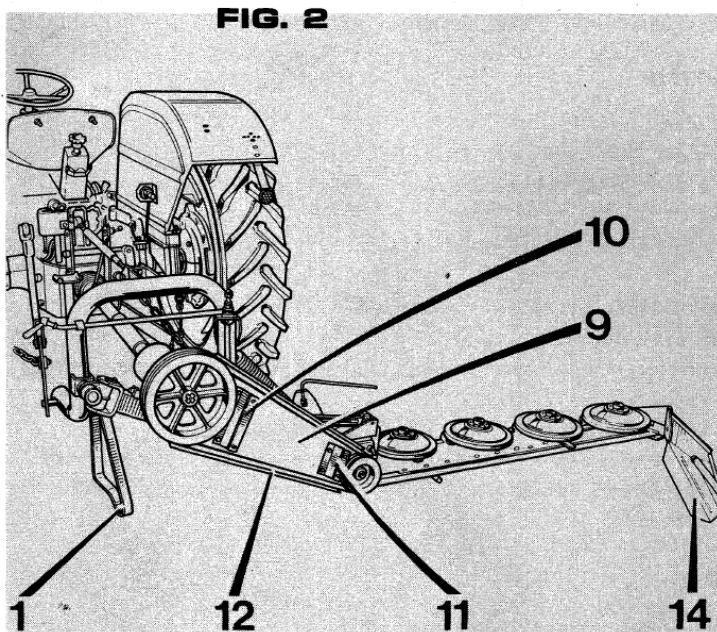
2. assembling the mower

(Fig. 2, 3)

As the K28 mower is delivered in several parts, it must first be assembled following the instructions below in order:

mower assembly

Place the mower frame on the ground, taking care to lock the retractable stand in the low position (1)



- With the bar body resting horizontally, bolt the hinge flanges (2) to the strut (3) using the six HM12 x 1.25 screws (15 fig. 3); take care to fit the nuts inside the strut as shown in the figure.
- Check that the lifting rod (4) slides freely in its support (5), lubricate it if necessary.
- Lift the end of the bar slightly using a wedge then adjust and fit the lifting pin (6), fitted with its nylon bearing, to the bracket on the angle gearbox, taking care to lock the pin with the grub-screw (7).
- Fit and adjust the compensating spring (8). Fit the inner belt guard (9) and the brackets (10 and 11).
- Fit the three trapezoidal belts (12) on the pulleys. Tension these using the process given in the chapter "Checks and troubleshooting".
- Fit the belt outer cover (13) and swath board (14)
- Fit optional accessories: flexible cover, hydraulic bar lift.

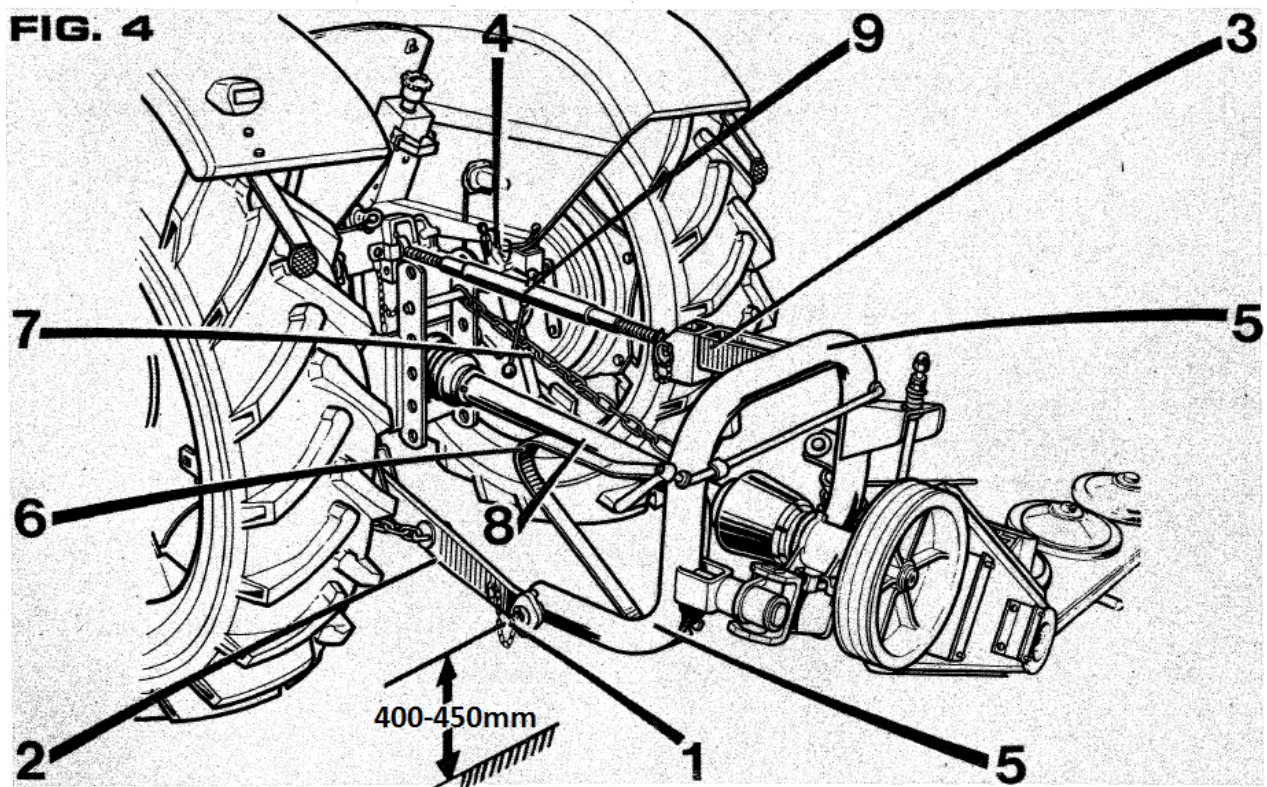
Note

For the adjustments to be made during assembly, refer to the chapter "checks and tuning".

mounting the mower on the tractor

(Fig. 4)

- To facilitate assembly, remove the paint covering the pins and journal bores.
- Make sure that the hitch pins (1) match the linkage of the tractor (category I or II). For category II linkages, fit the bushings supplied with the mower. Lower the lift arms, slacken the side chains.
- Attach the mower frame to the lift arms (2) and secure in place with clips. Connect the upper yoke of the frame (3) to the adjustable top link (4).
- Tighten the side chains, raise the lifting arms to the high position, then adjust the top link (4) so that the uprights (5) of the frame are exactly perpendicular to the ground.



- Put the retractable support (6) in the high position.
- Adjust the stabilising chain (7) for limiting the lowering of the lift arms and adjust it so that: in the low position the axis of the pins (1) is 400 – 450 mm from the ground.
- Fit the PTO drive shaft (8), the length of which must be such that:
IN THE WORKING POSITION (stabilising chain tight) the tubes are engaged by at least 120 mm.
IN THE HIGH POSITION the tubes must overlap by more than 2 cm.
- Hook the chain of the PTO guard sleeve to an anchor point to prevent the sleeve spinning.

IMPORTANT if the tractor does not have an independent power take-off then a freewheel should be fitted to the PTO shaft.

3. operating

checks and adjustment

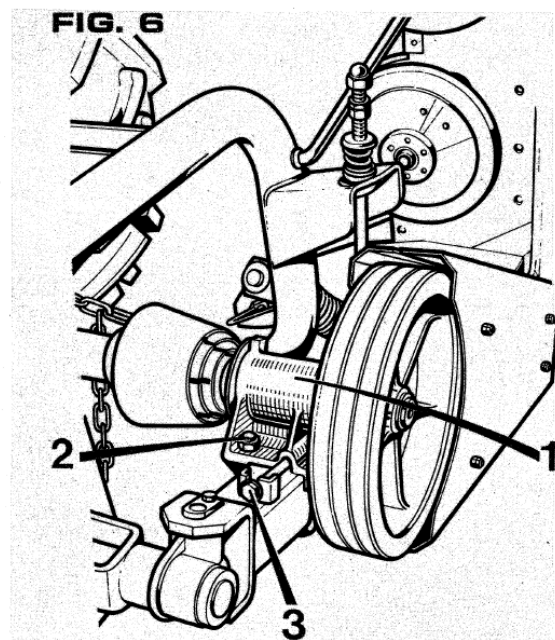
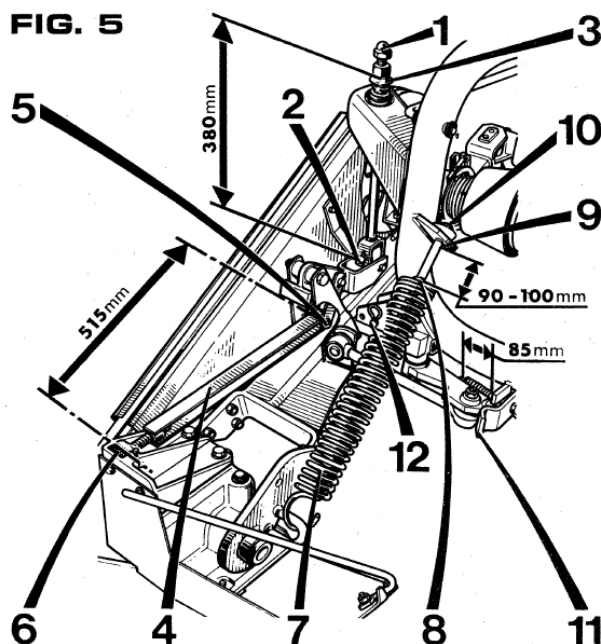
(Refer Fig. 5, 6) Before starting the machine, it is essential to check the following components:

gearbox/bar lubricating oil level

See chapter "lubrication".

lifting rod

(1, Fig. 5) Adjust the distance between the lifting yoke pin (2) and the base of the stop nut (3) to 380 mm.



lifting link

(4, Fig. 5) Under normal conditions of use, i.e. when the mower is working on level ground, the length of the link is easily determined,

The control is carried out as follows:

- place the bar in the working position;
- measure the distance between the two pivot pins (5 and 6) which must be 515 mm.
- To adjust the length of the link, use a wedge to lift the outer shoe slightly to unload the link (4), extract the pin (6) after loosening the grub screw, then screw the link end in or out as required.
- After adjustment, remember to lock the pin with the grub screw.

compensating spring

(7, Fig. 5) This spring plays an important role in the functioning of the machine, and must have the correct tension when the mower is in the working position. The adjustment of this spring results in 90 to 100 mm between the top of the spring (8) and the bottom of the bracket (9). This dimension can vary depending on the forward speed of the tractor and the nature of the terrain by adjusting the screw (10).

Note that too much tension on the spring leads to unevenness of the cutting height due to instability of the bar. Conversely, a low tension prevents the bar from following the undulations of the ground.

cutter bar breakaway latch

(11 Fig. 5) This device releases the bar allowing it to swing back when it encounters a major obstacle. It comprises a spring which is 85 mm long in its compressed state when correctly adjusted. If necessary, adjust the spring tension nut to obtain the required dimension.

drive belt tension

(Fig. 6) The trapezoidal belts are tensioned by moving the pulley support (1) on the strut. To do this, slightly loosen the clamps (2) and adjust the tensioner (3) so that mid way between the pulleys the belt deflects about 17mm when pressed.

WARNING

Over-tensioning the belts will prevent them from slipping in the event of a possible shock load on the rotating components and may also cause premature wearing of the driven pulley bearings.

operational settings

- Depending on the nature of the crop and the terrain, two settings can be modified;
- the approach angle of the bar which varies according to the length of the top link (9 Fig. 4)
 - the lateral angle of the bar which varies according to the length of the lifting link (4 Fig. 5). In fact, from the horizontal position it is possible to give the bar an inclination of between minus 20° and + 15° by increasing or reducing the lifting link's base length of 515 mm given in the chapter "Controls and adjustment". Refer to that chapter for adjustment details.

usage

configuring for transport

(Fig. 7 & 8) With the bar resting on the ground, with the tractor engine running, make sure that the PTO control lever is in neutral.

Raise the 3-point linkage to lift the entire mower up, detach the retractable support (1) from the frame and fit it on the stub shaft (2) of the bar body.

Then, lower the lifting arms to incline the bar which will facilitate its folding and LOCK THE STRUT TO THE FRAME using the pin (12 Fig. 5)

Manually fold up the cutter bar and secure it with the transport rod (3 Fig. 8)
Replace the retractable stand (1 Fig. 7) on the frame then raise the whole mower.

setting up for mowing

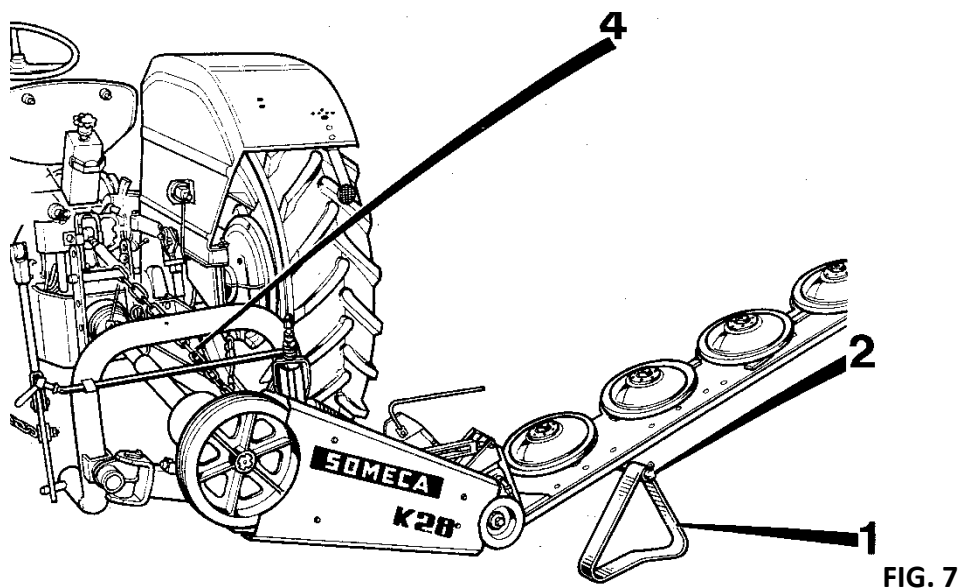
(Fig. 7) Remove the retractable support (1) from the frame.

Lower the mower by way of the 3 point linkage.

Adjust the length of the stabilisation chain (4) if this has been modified. (refer to the chapter "mounting the mower on the tractor")

Fit the retractable support (1) on the bar body stub shaft (2) and unscrew the nut of the transport rod (5 Fig. 8).

Manually lower the cutter bar until it comes into contact with its stand on the ground and UNLOCK THE THE STRUT FROM THE FRAME by removing the pin (12 Fig.5). Take care to put the clip back in the second hole as shown in figure 5.



Stow the transport tie-rod (3) and raise the mower using the hydraulic lift to release the retractable support (1) which is then replaced on the frame.
Lastly, lower the lift arms until the stabilisation chain is under tension.

adjustment of the rear track of the tractor

Look for the track which allows a distance of approximately 0.850 m between the tractor centreline and the OUTER edge of the right tire; then modify the position of the left wheel to obtain sufficient clearance between the wheels so as not to crush the forage cut in the previous pass.

In some cases, the ribs on the left tire may be facing backwards; this does not matter much, the work to be done requires only a low tractive effort. Remember to put this wheel back in its original position when resuming normal use of the tractor.

usage tips

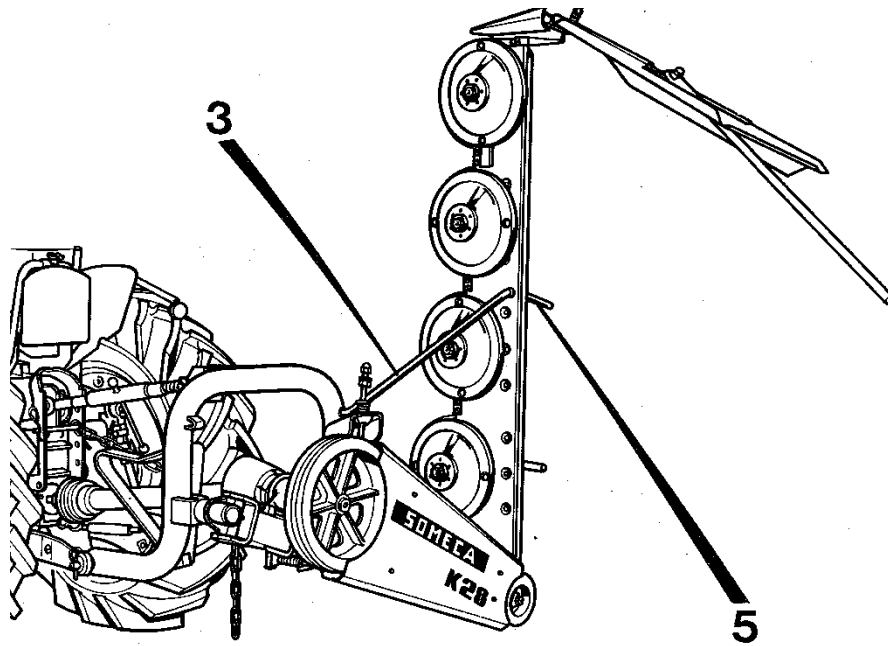
Given the high rotational speed of the discs, the forward speed of the tractor can be high. However, the recommended speed is around 8 km/hr. [Earlier version of this manual gave maximum speed depending on conditions of 10 – 12 km/hr.]

However, to obtain a clean cut as well as a normal functioning of the components of the machine, it is strongly recommended to never work with a power take-off speed lower than 540 rpm.

For a new mower, a break-in period is necessary to remove the roughness and paint which are on the parts of the bar in contact with the crop. Only after this period will the machine work with maximum efficiency.

IMPORTANT: Always ensure the correct length of the lift arm stabilising chain.

FIG. 8



4. maintenance

important tips

before the first start

Check:

- the tension of the belts;
- the blades and their attachment to the discs;
- the discs and their mounting;
- proper functioning of the gears by rotating the discs by hand a few turns;
- **the oil level** in the bar (see chapter "lubrication").

after the first twenty hours of work

On a new machine, check the tightness of the bolts, the tension of the belts and **change the gearbox/bar oil** (see chapter "lubrication").

Check the tightness of the various joints.

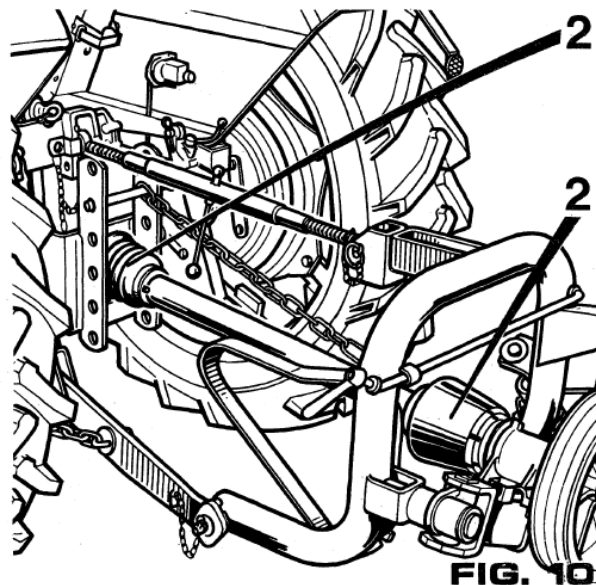
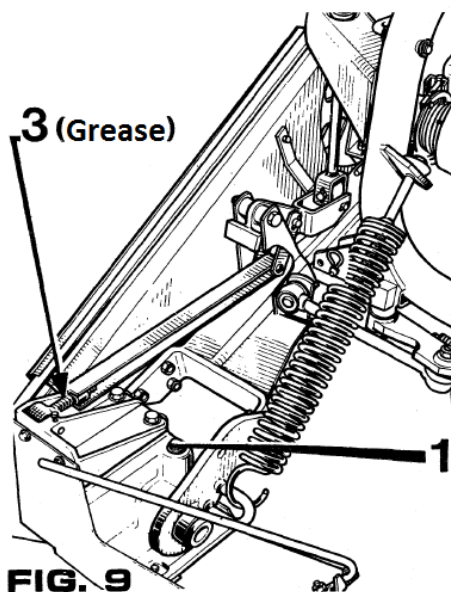
every day of use

Check the condition of the bar sheetmetal lower pan **and check the oil level**.

Wash the bar body with cold water to clean off deposits from cutting the crop (mixture of sap, crop residue and soil)

lubrication

(Fig. 9 & 10) The K28 mower is very low maintenance. In all there are 3 grease points, 2 on the PTO shaft and 1 on the hinge. However, special attention should be paid to the **oil level** of the gearbox/bar.



after the first twenty hours of work

On a new machine **drain the gearbox/bar lubricating oil and refill** as follows:

BEFORE DRAINING: run the mower for a few minutes in the vertical position. This operation allows a better evacuation of impurities.

TO DRAIN: Put the mower in TRANSPORT position, that is, the vertical bar body and unscrew the fill/level check plug (1 Fig. 9).

AFTER DRAINING: fill the gearbox/bar body with oil or diesel, run the mower for a few minutes: drain again and let it drain well before filling with oil.

FOR FILLING: Put the mower in WORK position, the bar body resting on the ground and pour oil [4.7 litres of **Mobiltrans HD 10W**] into the fill/level hole (1).

TO CHECK THE OIL LEVEL: with the bar body resting on the ground, IN WORKING POSITION, insert the level check plug (1) into the fill/level opening WITHOUT TIGHTENING IT. The oil should be flush with the engraved mark on the dipstick. [The oil level will be approximately 80 mm below top surface of the fill/level hole.]

every ten hours

Check the oil level (see previous paragraph).

When needed top up with **Mobiltrans HD 10W**. [If the oil level is 115 mm below the top surface of the fill/level hole, add 500 ml to bring it up to full level.]

every fifty hours

Lubricate the PTO shaft:

- inject MOBIL GREASE MP grease at the following points:
 - universal joints 2 grease points (2 Fig. 10)
 - separate the tubes and grease them;
 - oil the push-pins of the PTO spline locks

Inject grease into the hinge 1 grease point (3 Fig. 9)

once per season

Change the gearbox/bar oil by following the instructions given in the chapter "After the first twenty hours of work".

maintaining the cutting system

The blades mounted on the discs are the wear parts of the cutter bar; and depending on the amount of wear of the blades, it is possible to interchange them or replace them with new parts. Carrying out these operations requires care.

reversing the blades

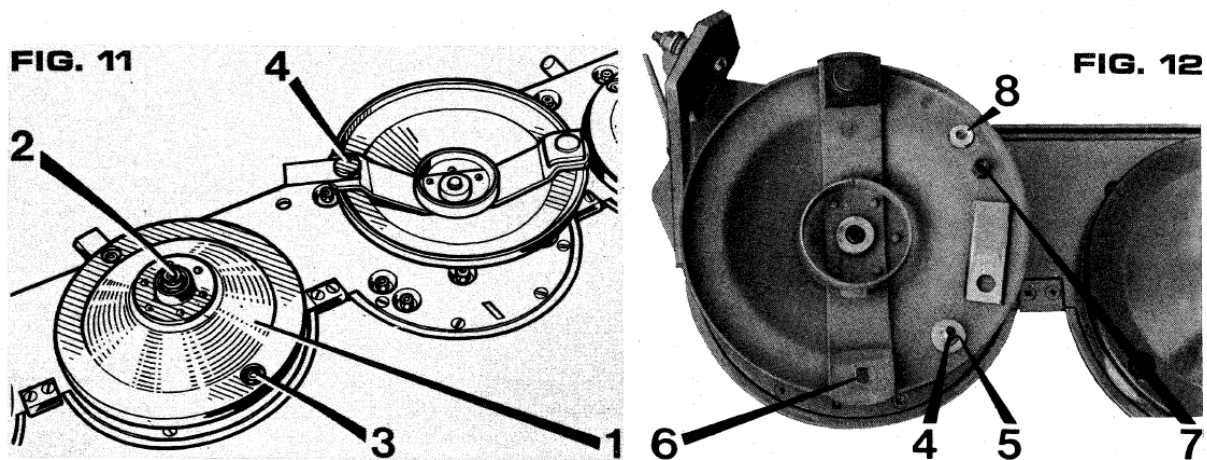
(Fig. 13) When the first cutting edge of the blade is worn, interchange the blade (1) with blade (2) and the blade (3) with blade (4). This operation allows to use the second cutting edge of the blades.

Warning When disassembling the discs carefully follow the instructions given in the paragraph "Positioning the discs".

assembling and dismantling the blades

(Fig. 11 & 12) The blades mounted on the discs, being wearing parts, are easily and quickly dismantled. However, it is advisable to take some precautions listed on the following page:

- remove each disc (1) by loosening the Nyloc nut (2) and place the disc upside down on its splined shaft to facilitate blade removal as shown in figure 11.
- During this operation, **TAKE CARE NOT TO LOSE THE WASHERS** retaining the plates:
- with a spanner (see figure) remove the Nyloc nut (3) and extract the pin (4) to release the blade as shown in figure 12.
 - when reassembling the blades, make sure that the two flats (5) of the shaft (4) fit perfectly into the bore (6) of the disc. Remember to place the special washer (8) under the nut (7).
 - fit the discs using the positioning indicated in the following paragraph;
 - tighten the blade shaft nut (3) moderately and the disk nut (2) strongly.



positioning the discs

To obtain a regular cut, it is essential to position the discs in relation to each other. Figure 13 shows the orientation of each blade when mounting the discs. After positioning, firmly tighten the Nyloc nuts (2 Fig. 11)

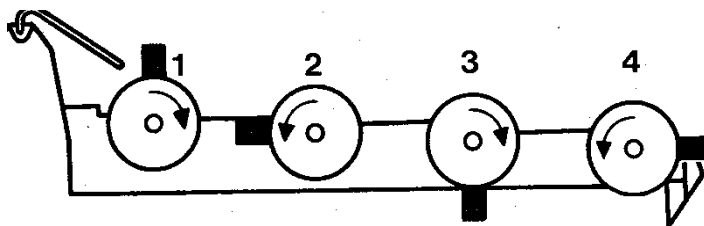


FIG. 13

[Balance washers may be replaced by blades, so that each disc has 2 blades. The orientation of the blades and discs is unchanged from that in Fig 13]

Warning

Each time a blade or plate is assembled check the condition of the nylon ring of the Nyloc nuts (2 and 3 fig. 11) – wearing of this ring allows the nuts to loosen and can cause serious damage. This is the reason it is imperative to change these nuts as soon as their state of wear allows them to be screwed by hand.

storing the mower

At the end of the season, avoid leaving the mower dirty and exposing it to bad weather.

Before placing it on the ground:

- replace the Nyloc nuts (2 and 3, figure 11) on the blade holder plates, and replace the blade shafts.
- carefully clean the cutting units;
- remove the blades to protect them from oxidation; take the opportunity to coat the splined disc shafts with grease;
- slacken the three trapezoidal belts;
- lubricate the cardan transmission and change the oil in the bar body;
- grease or oil the joints and unpainted metal parts such as discs and deflectors;
- fold the retractable stand into the low position, place the bar in the transport position and place the whole mower in a sheltered place.

5. additional accessories

Two additional accessories can be fitted to the K28 rotary mower.

- a plastic fabric shield protecting the tractor driver from debris thrown up by the rotating discs,
- a hydraulic lift for folding the cutter bar into the transport position.

mounting the fabric shield

1. First replace the lifting bearing with a special bearing (1- fig. 14) supplied with the protector;

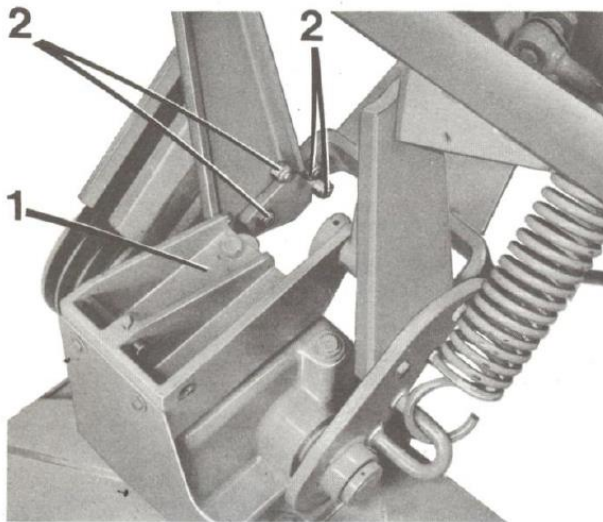


FIG. 14

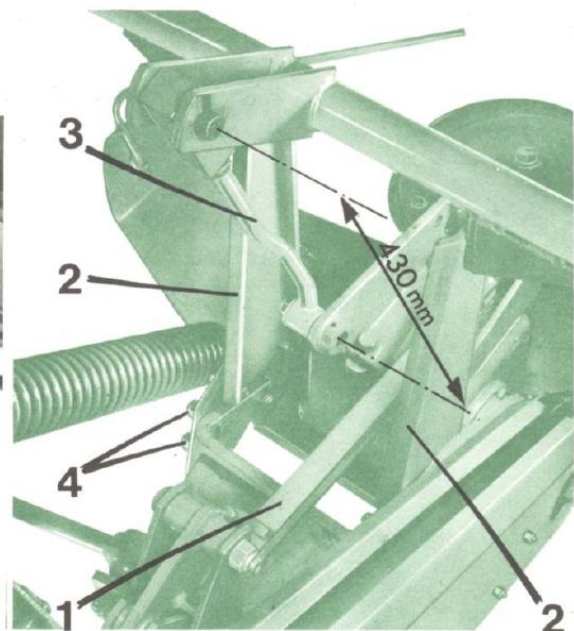


FIG. 15

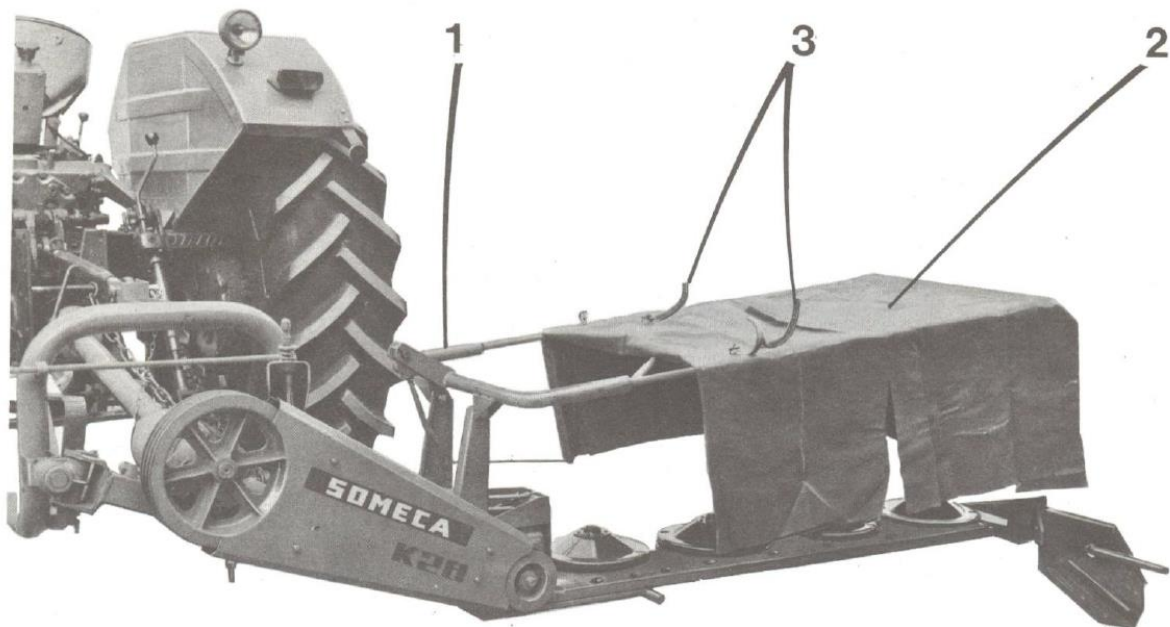
however, this substitution is not necessary for certain machines on which this special bearing has already been fitted as standard.

2. Adjust the lifting link (1 - fig. 15) according to the adjustments and settings described on pages 8 and 9 (see instructions).

3. Fit the two protective supports (2 - fig. 15) on the hinge arms.

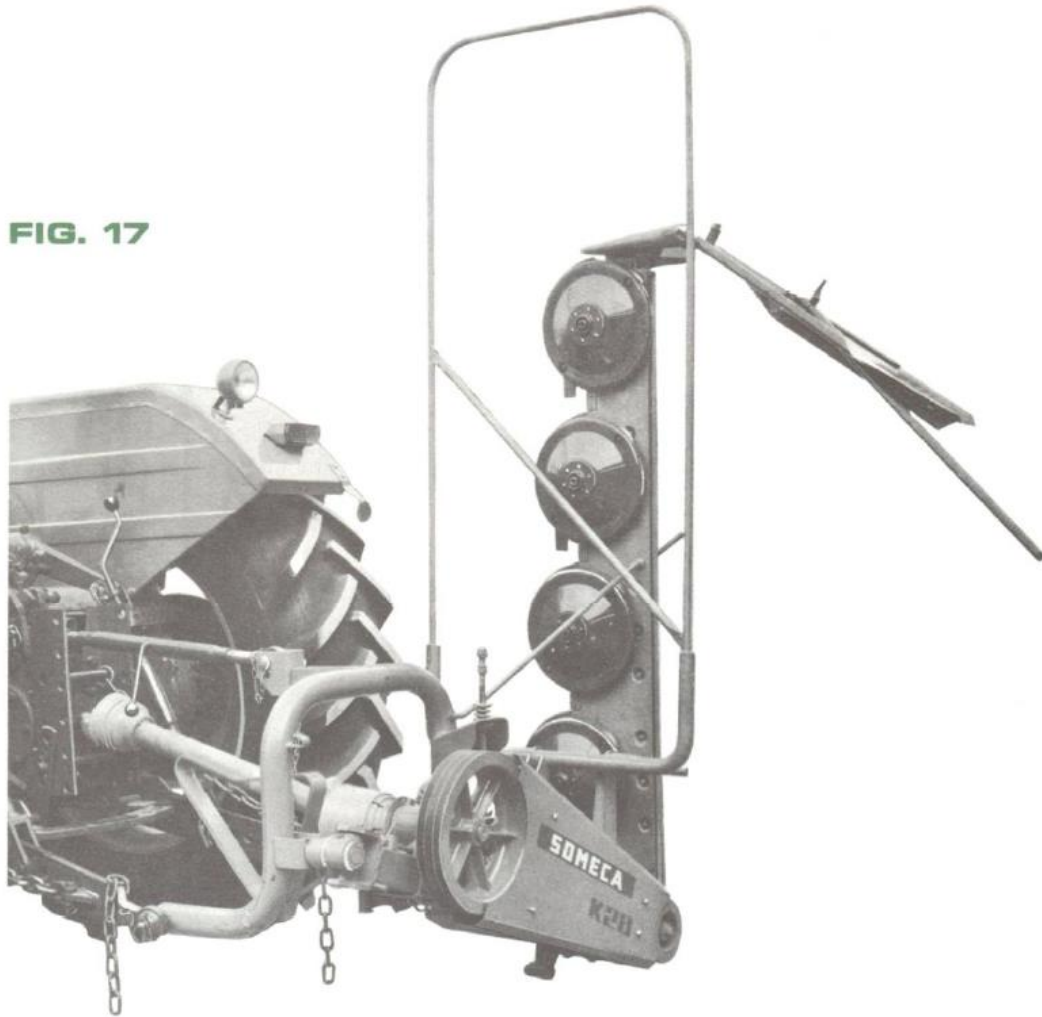
4. Assemble the frame (1 - fig. 16) using the two HM 16 x 1.5 - 40 screws and the two pivot bushes.
5. Place the plastic fabric sheet (2 - fig. 16) on the frame and clamp it in place, using the straps 3.
6. Fit the folding tie rod (3 - fig. 15) with its bushings and adjust its length initially 430 mm (see figure 15). Complete this setting as follows:
 - with the bar resting on the ground, unlock the strut to put the mower in the working position,
 - use the tractor 3 point hitch to lift the cutter bar off the ground. Then adjust, if necessary, the length of the tie rod so that the frame of the guard is perfectly parallel to the cutter bar.

FIG. 16



IMPORTANT when folding the bar up for transport as shown in fig. 17, make sure that there is no interference between the various parts of the machine and the assembly screws (2 fig. 14 and 4 fig. 15).
As a precaution, when fitting the protector, fit the two screws 4 fig. 15 so that the nuts are on the outside.

FIG. 17



fitting the hydraulic lift

(Fig. 18 & 19) Using the supplied bracket, fit the lifting cylinder (1) to the strut by positioning its support (2) 150 mm from the locking lug (3). Take care to firmly tighten the nuts of the cylinder support bracket. To comply with the dimension indicated above, it is necessary to shorten the screw (4) of the belt tensioner by 15 mm. Replace the lifting rod (5) with the angled one, then adjust it to 380 mm as indicated on page 8. This operation is not necessary on some machines which already have the angled rod (see instructions).

NOTE In the absence of an angled rod, the original one mounted on the machine can be used by bending it according to the dimensions in figure 20.

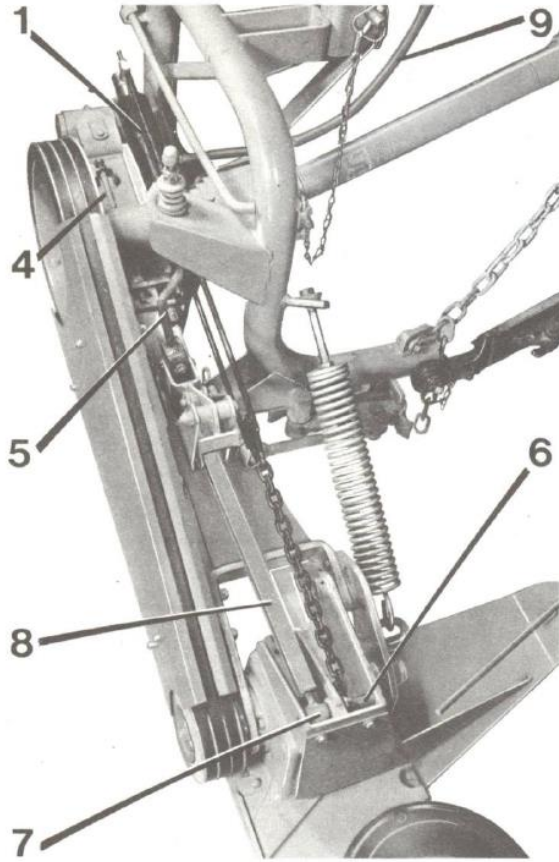


FIG. 18

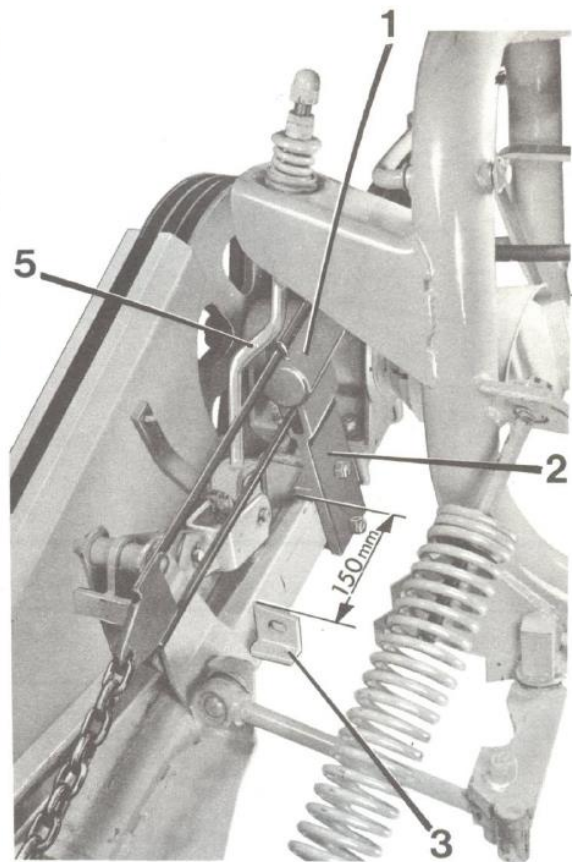


FIG. 19

Fit the end of the chain (6) on the lifting bearing, replacing the pin of the journal (7) with a longer pin. During the replacement, check that the length of the tie rod (8) is adjusted according to the standards indicated on page 8. (see instructions).

Connect the hose (9) of the cylinder to the hydraulic system of the tractor, the control valve of which must be **single acting**. It is advisable to place a flow reducer in the hydraulic circuit to prevent the cutter bar from folding too suddenly; the latter must have an orifice of 1 mm and can be introduced into the inlet connection of the cylinder, in this case its external diameter will be 16 mm and its thickness 4.5 mm.

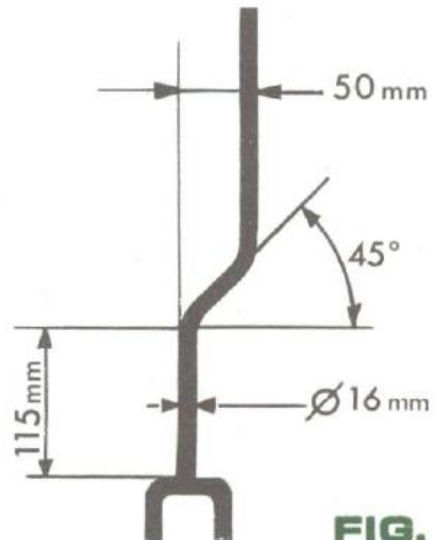


FIG. 20

MAINTENANCE GUIDE

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WARNING

This guide describes the special maintenance procedures for the cutting bar transmission components. Any maintenance of the internal components requires draining the oil from the gearbox/cutting bar, then a complete exterior cleaning to prevent foreign material contaminating the transmission internal mechanisms when the bar is stripped down.

DO NOT STEAM CLEAN

Several steel parts forming an integral part of the bar body (hinge pins, bushes, etc.) are fitted into the aluminium by pre-soaking in liquid nitrogen. Excessive heating of the assembly will cause significant expansion of the aluminium resulting in the loosening of the steel parts in the housing. The following pages describe the use of special tools for gear train checks and maintenance. **Given the precision of the assembly, it is strongly recommended to use these special tools, described at the end of this maintenance guide.**

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1. recommendations

Each year or during maintenance of the cutting bar, it is important to carry out the following checks and maintenance:

Internal

- check the play of the input shaft of the right-angle transmission;
- check the backlash of the 20/21 tooth bevel gear in the right-angle transmission;
- check the condition of the 17/18 teeth pinions driving the cutting discs;
- if required, adjust the backlash of each 17/18 tooth bevel gear.

External

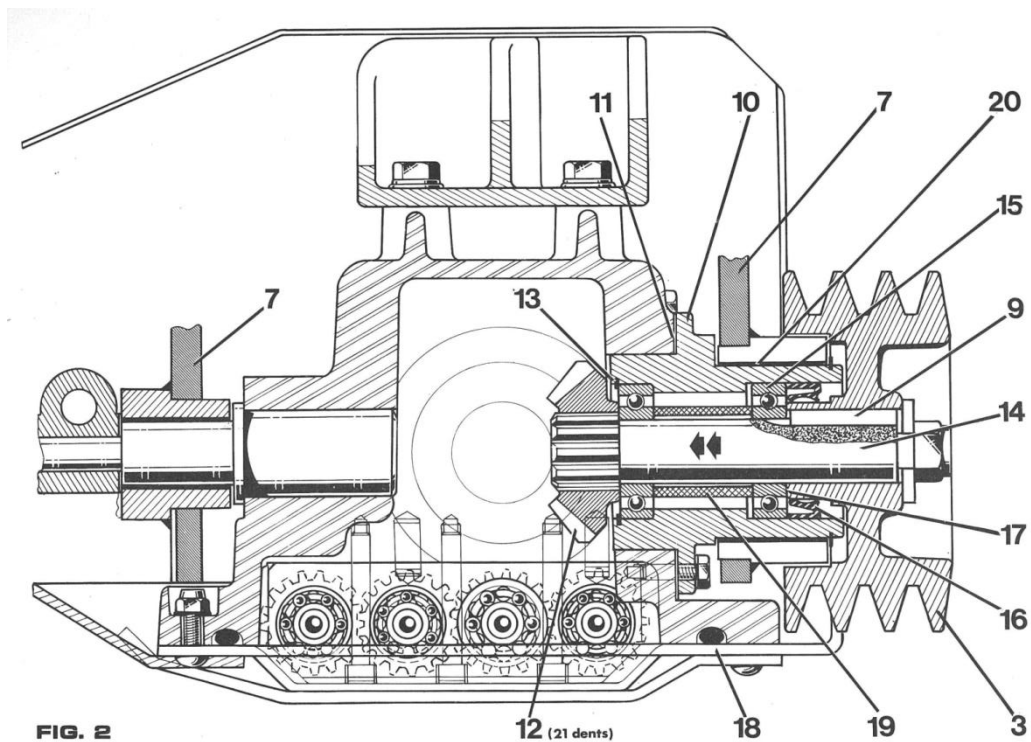
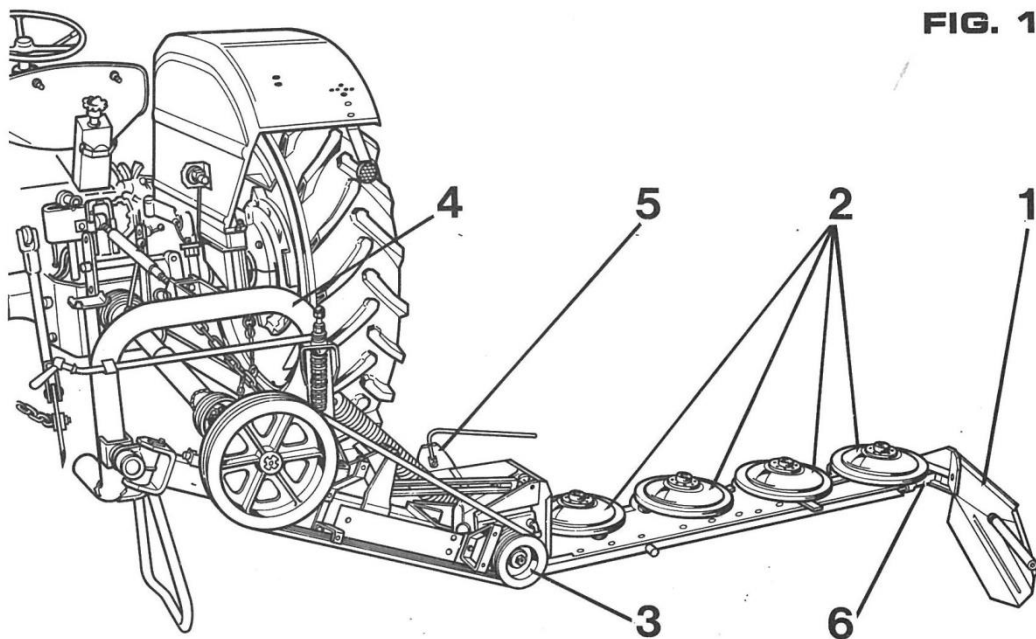
- change the nyloc nuts on the cutting discs and check the condition of the splines of the disc stub shaft;
- check the condition of the pressed steel belly pan making sure that there are no punctures or very deep scratches;
- check the seal between the belly pan and the bar body;
- check the state of wear of the various lower and intermediate protective skids; check the attachment of the outer skid to the bar;
- make sure the nylon bushings of the strut hinge arms are in good condition;
- change the oil in the bar [4.7 litres Mobiltrans HD 10W].

2. initial dismantling

(Fig 1 & 2)

Having cleaned, drained, and separated the cutter bar from its support frame (4), remove all the accessories from the bar body:

- the swath board (1)
- the blade-holder discs (2)
- the driven pulley (3) and its key and the cutting discs
- the main strut hinge flanges (7)
- the steel skids and the pressed steel belly pan of the bar body (18).



Remove the belly pan gasket (3 Fig.10) and wash transmission components thoroughly with solvent to remove residual oil.

3. maintaining the right-angle gearbox

replacing the input shaft lip seal or bearings

(FIG. 2)

This operation can be done without carrying out the preliminary dismantling indicated above. Instead:

- remove the pulley (3 Fig.1) and its key (9) then remove the rear hinge flange (7);
- extract the input shaft (10) from the gear case (as shown in figure 3), carefully retaining the adjusting shims (11);
- remove the 21 tooth bevel gear (12) using two levers;
- remove the circlip (13 Fig.2) holding the internal bearing;
- using a soft drift, drive out the input shaft (14) on the 21-tooth pinion side (in the direction of the arrow) to release the bearing and the spacer (19);
- extract the outer bearing (15) with the oil seal (16);

For reassembly, proceed in the reverse order indicated above. However, before installing the pulley, coat the keyway (9) and the hub face (17) of the pulley on the outer bearing (15) with Flertex brand "Plastex" EMB.89345 sealant.

adjusting 20/21 tooth bevel gears

(FIG. 2 & 3)

This operation requires the removal of the pressed steel belly pan (18) as shown in figure (2)

With the secondary shaft in place, adjust the end float using shims (11) placed between the input shaft housing (10) and the bar housing. This clearance should be 0.15 mm to 0.20 mm. When checking, make sure that the two pinions (12) and (1 Fig. 4) are resting firmly against the inner bearing race.

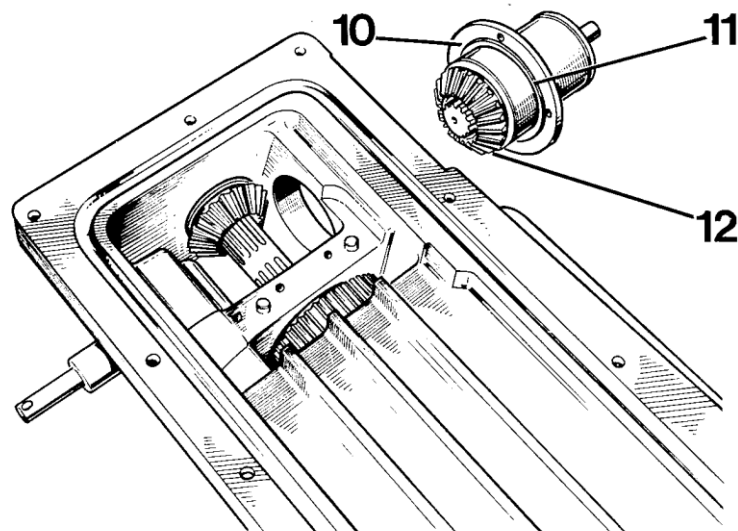


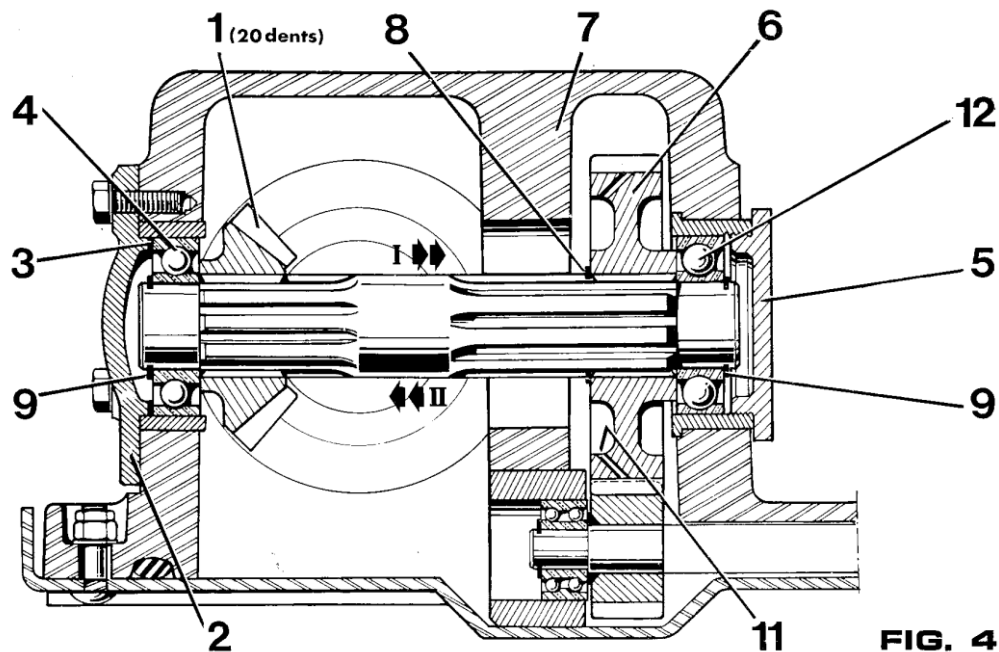
FIG. 3

maintaining the secondary shaft

(FIG.4 and 4A)

For this operation the drive shafts (5 Fig. 10) and their bearings (1 and 2 Fig.10) must be removed then;

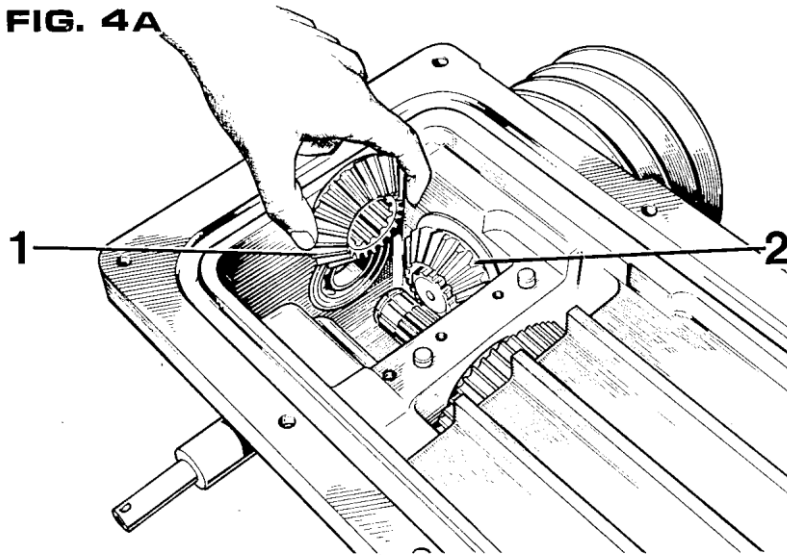
- remove the bearing cover (2), carefully keeping the shim (3) positioning the bearing (4);
- unscrew the notched cap (5);
- using a soft drift, move the secondary shaft until the 47-tooth pinion (6) is resting on the intermediate support (7)
- remove the circlip (8) and the two end circlips (9);
- Drive out the secondary shaft in the direction of the arrow (I) to allow the release of the 20 tooth pinion as shown in figure (4A);
- reassemble the secondary shaft by hand in the corresponding bearings and drive it out in the direction of the arrow (II) to release the 47 tooth pinion (6).



The secondary shaft can be reassembled without difficulty, as follows:

- position the 47-tooth pinion (6) in the casing, orienting the lubrication holes (11) towards the intermediate partition (7);
- fit the secondary shaft to the 47 tooth pinion with the the intermediate circlip (8) not yet engaged in its groove;
- fit the 20-tooth pinion (1), the internal bearing (4) and its cover (2) without the adjusting shim, then fit the shaft into the bearing;
- fit the outer bearing (12), its locking circlip and the plug with notches previously coated with "Plastex";
- again remove the cover (2) to fit the circlip (9) and the spacer ring (3) for centralising the internal bearing, then replace the cover on the "Plastex";
- finally, engage the retaining circlip of the 47 tooth pinion (6) in its groove.

FIG. 4A



Remember to set the backlash of the bevel gears 20/21 described above.

IMPORTANT

(Fig. 4A) If the two shafts are to be removed from the housing, first remove the secondary, in order to facilitate the extraction of the 20-tooth pinion (1) which meshes with the 21-tooth pinion (2) of the input shaft.

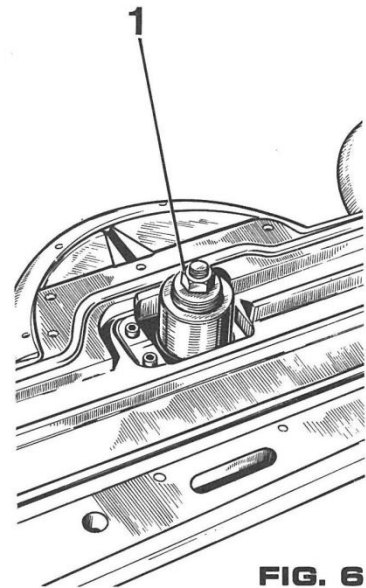
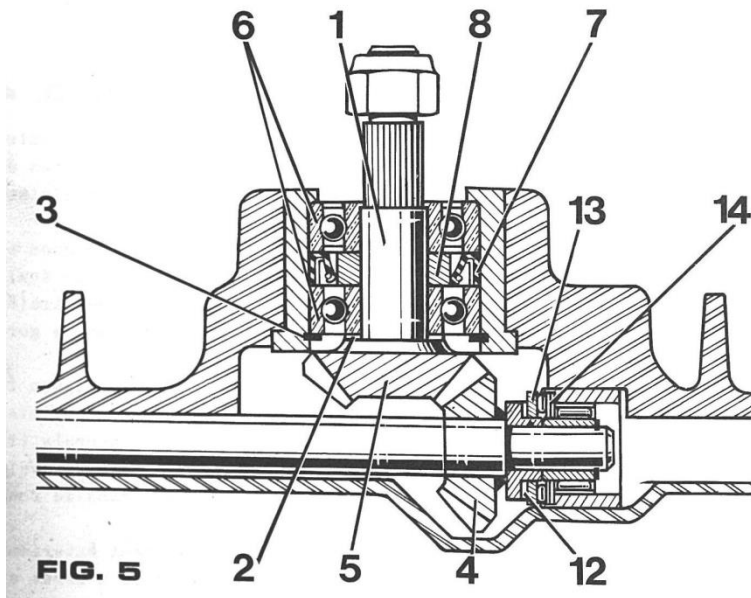
Do not swap the positions of bevel gears (1) and (2), or this will change the rotational speed of the blade-holder discs.

4. maintaining the 17/18 tooth bevel gears

This operation requires the removal of the drive shafts (5 Fig.10) and their bearings (1 and 2 Fig.10): for this, after removing the fixing screws, the four shafts with their bearings will be removed together and parallel to their initial position, to avoid jamming of the dowels (6 Fig.11) in the landings.

dismantling the 18-tooth shaft pinions and their bearings

(Fig. 5) Using a soft drift, drive the shaft pinion (1) from the outside to the inside of the bar body and keep the shim (2). Remove the circlip (3) then fit the extractor as shown in figures (6 & 7). Do up the nut (1 Fig. 6) to extract all the elements – bearings, seal and spacer.

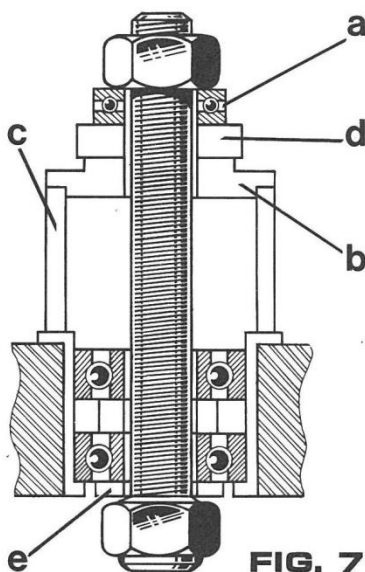


positioning the 18 tooth shaft gears

(Fig.5 - 9) The objective is to determine the thickness of the shim (2) precisely so that the pinions 17 teeth (4) and 18 teeth (5) mesh perfectly.

For this operation, the use of specific tools such as that presented in FIG. (9) is essential and must be done under the following conditions;

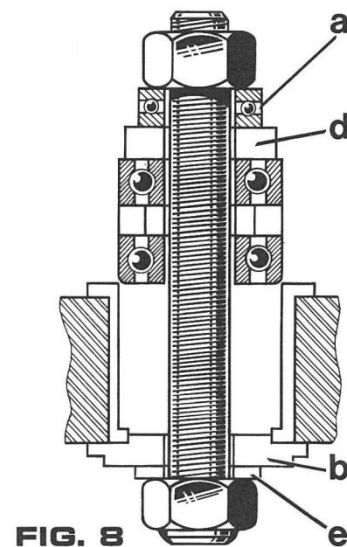
- using the press used for extraction, reassemble all the bearings (6), the seal (7) and the spacer (8) as shown in figure (8);
- then make sure by hitting with a drift that the bearings are perfectly in place;
- in place of the shank pinion, place the vertical pin (9) then fit and tighten the false bearing (10) fitted with its horizontal pin (11) to 4 m.kg [40 N.m];
- find among a set of shims supplied as spare parts, the one (2) sliding freely but without play between the studs (See Fig. 9);
- remove the bolts then refit the 18-tooth shaft pinion with the positioning shim (2) determined previously.



Removal

LEGEND

- a. thrust bearing
- b. shouldered washer
- c. spacer
- d. washer 50 x 20 x 10
- e. washer 40 x 20 x 3



Reassembly

backlash adjustment

(Fig.5) This operation consists of allowing a side play of the horizontal pinion 17 teeth (4) of 0.1 mm after reassembling the bearings (1 and 2 Fig. 10) tightened to 4 m kg [40 N.m] This will determine the thickness of the shims (12) to obtain the recommended setting.

Carefully measure the play of 0.1 mm since the thrust washer (13 Fig. 5) of the "Nadella" bearing [combined radial and thrust needle roller bearings] can tilt: it is recommended to keep this perfectly in contact with the Nadella bearing (14).

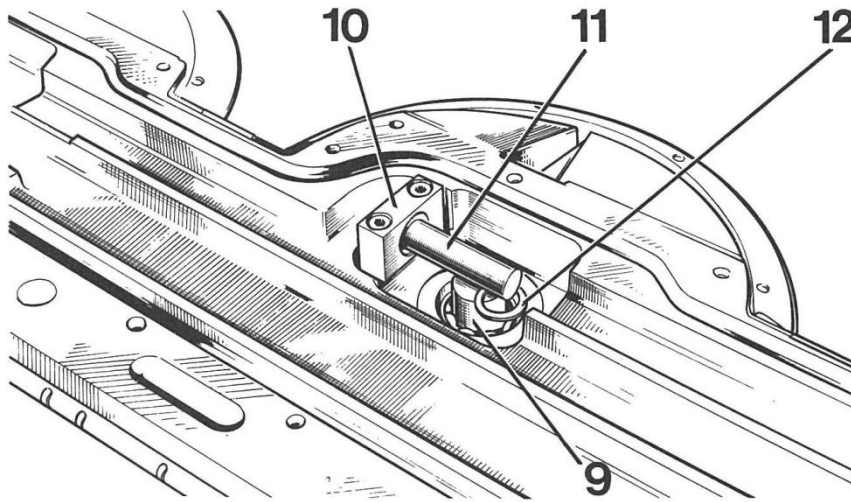


FIG. 9

IMPORTANT

Note that the 3 fixing screws of the bearing (2 Fig.10) are longer than those of the bearings (1 Fig. 10) of the "Nadella" bearings.

If the bearing mounting screw threads in the aluminium become worn or stripped, the threads can be repaired using a self-tapping bush. For this, use the "INTERVIS" type SA8 sockets which are fitted using a special tool.

To fit the bush, use a 10.5 mm diameter drill.

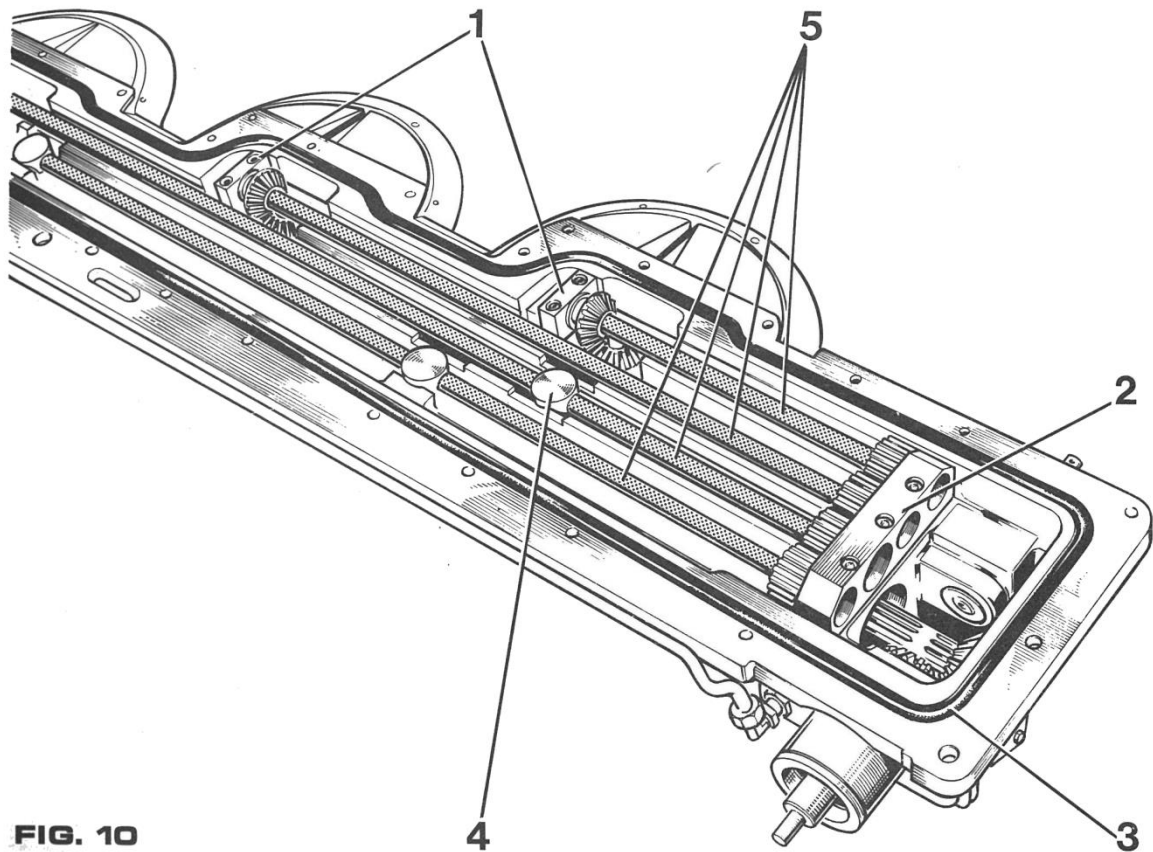


FIG. 10

5. bar reassembly and adjustment

Having made the adjustments listed above, check the tightness of the bearings (1 and 2 Fig.10) of the drive shaft to 4 m.kg [39 - 40 N.m] and fit the intermediate bearings (4 Fig.10).

Place the belly pan O-ring gasket (3 Fig. 10) making sure that the two bevelled ends are properly glued (see note) and that its groove (1 Fig. 11) is perfectly clean; then fit the pressed steel belly pan and gradually tighten the assembly bolts. [NOTE: sealant may need to be added to the clamping faces of the O-ring at the right-angle gearbox end of the bar up to the first disc to augment to ensure leak-free performance. This is because the belly pan distorts between the bolts when the bolts are tightened. An alternative is to strengthen the belly pan in that area so that it does not distort so much.]

Reassemble the cutting bar and attachments:

- when fitting the pivot flanges lightly coat the plastic bearing bushes with grease (20 Fig 2);
- when replacing a collar (2 Fig.11) or a wear plate (3 Fig.11), tighten the fixing screws to 3 m.kg [29 - 30 N.m] and preferably spot weld the collars to the wear plates (4 Fig.11);
- if changing a lower shoe, ensure the new part fits correctly in its seat (5 Fig.11) to prevent it breaking when tightening the fixing bolt;
- remove, if necessary, any deep scratches that may be on the bar body using a "Metolux" type [2 component polyurethane] filler.

Finally, fill the bar up to the required level (see operating instructions) with "MOBIL OIL 10 W" oil. [Superseded by Mobiltrans HD 10W, 4.7 litres]

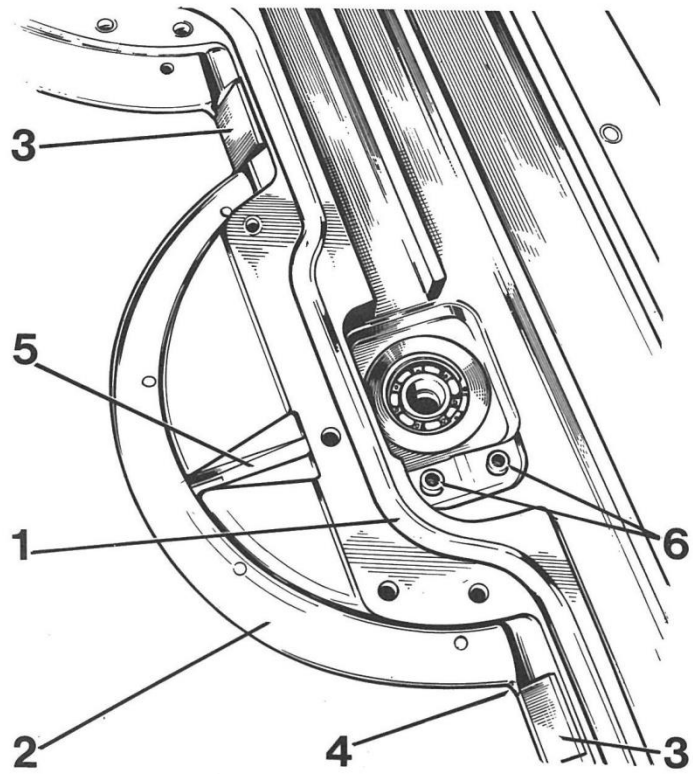
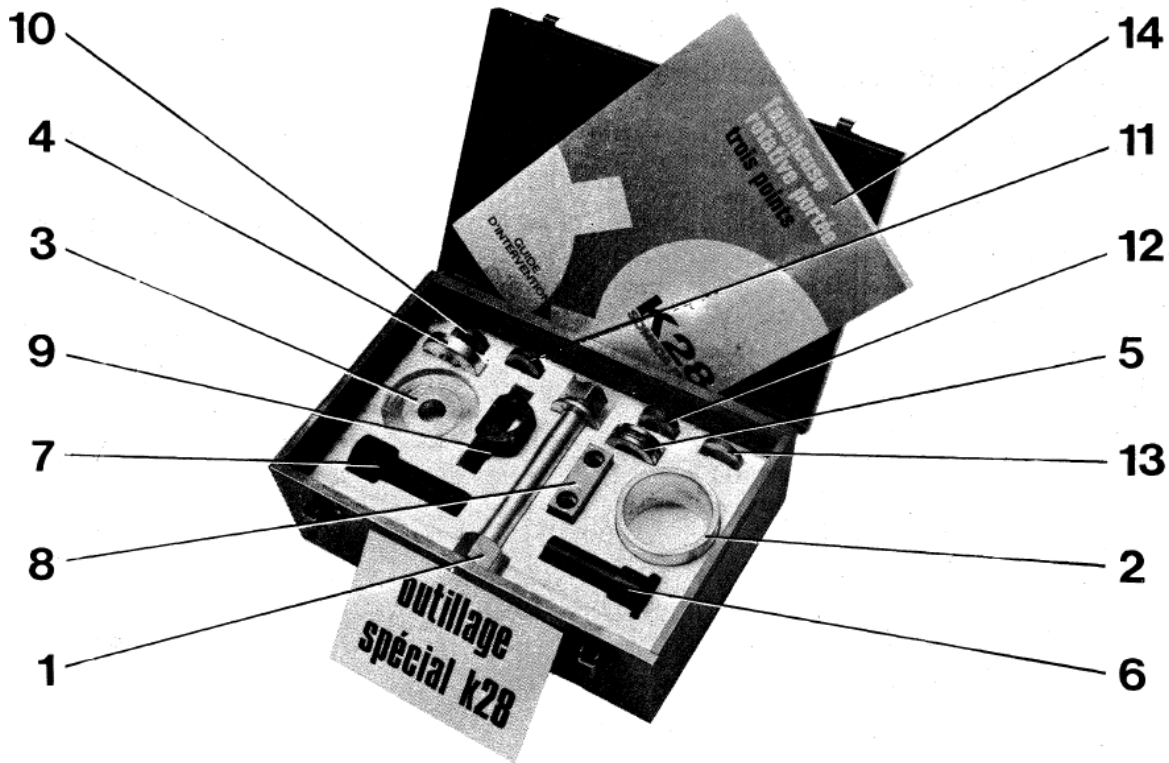


FIG. 11

NOTE In the case of re-gluing the gasket, it is advisable to re-cut the ends at a 30° bevel and to use the "CYCRYL" glue distributed by the SOFAC establishments - 37, rue Notre-Dame de Nazareth - PARIS IIIe - Phone. 272. 55.10

K28 special tools



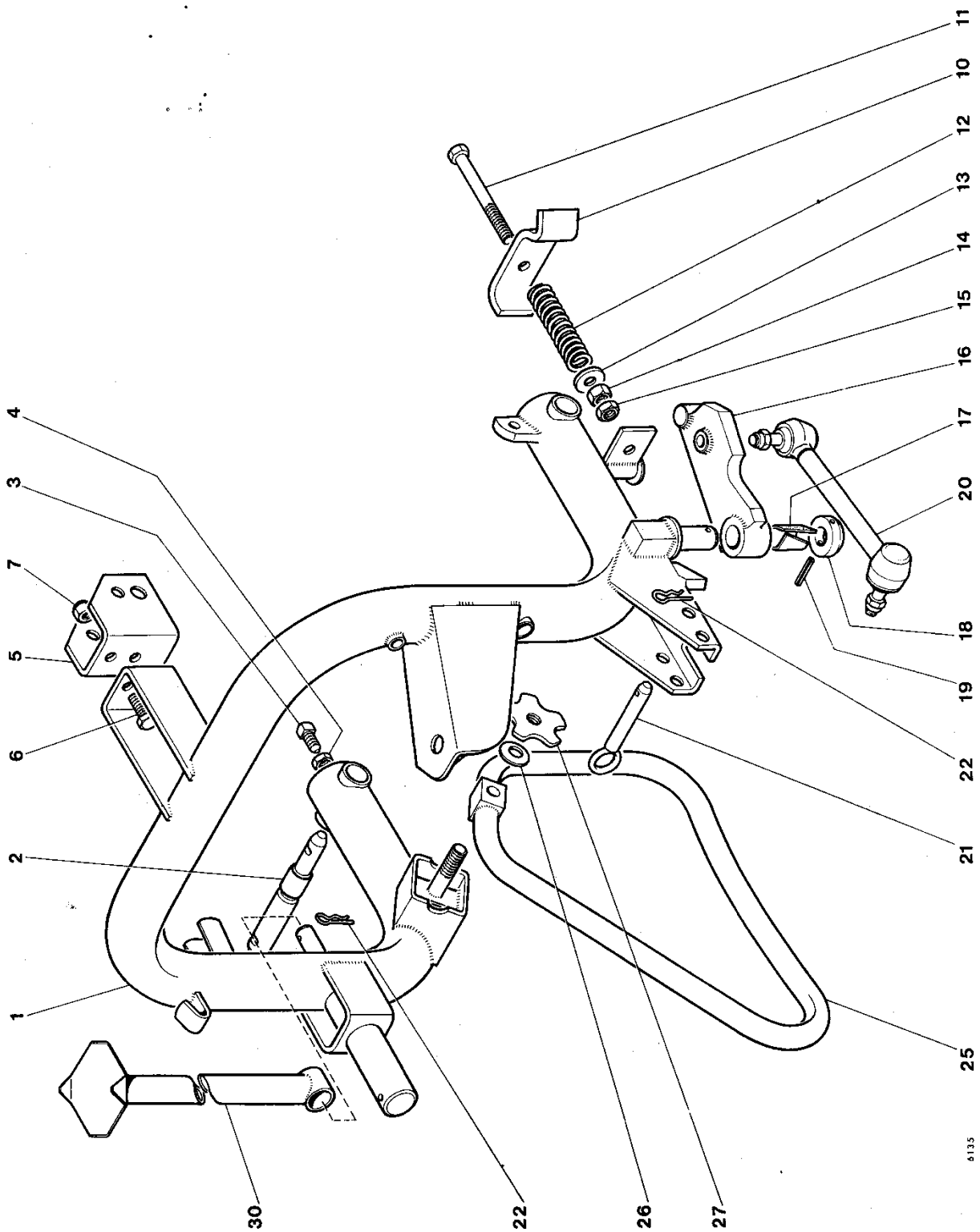
Item	Part number	Designation and use
1		Threaded rod with nut and washer, for extracting the disc stub shaft bearings
2		Extraction bush for the above bearings
3		Double shoulder washer for extracting and reassembling the above bearings
4		Thrust washer for mounting the above bearings
5	407.901	Bullet stopper placed under the nut of the threaded rod (1)
6		Horizontal rod mounted on the bearings (8) and (9)
7		Vertical rod mounted in place of the tray support shaft
8	44.036.290	Original bearing 1st version
9	44.037.027	Original bearing 2nd version
10	44.037.235	Washer: 1.9 mm thick
11	44.037.234	Shim: 1.8 mm thick
12	44.037.233	Shim: 1.7 mm thick
13		Shim: 1 mm thick
14	10.684	K28 Maintenance Guide [this manual]

SPARE PARTS CATALOGUE

contents

- Plate 1 frame and safety latch (version 1)
- Plate 2 frame and safety latch (version 2)
- Plate 3 bar suspension
- Plate 4 stabiliser mechanism (version 1)
- Plate 5 stabiliser mechanism (version 2)
- Plate 6 main strut
- Plate 7 Glaenzer Walterscheid pto shaft (with freewheel)
- Plate 8 Bondioli pto shaft (with freewheel)
- Plate 9 Glaenzer Walterscheid pto shaft (without freewheel)
- Plate 10 belt drive and guards (version 1)
- Plate 11 belt drive and guards (version 2)
- Plate 12 bar body (version 1)
- Plate 13 bar body (version 2)
- Plate 14 right-angle gearbox
- Plate 15 disc drive system (version 1)
- Plate 16 disc drive system (version 2)
- Plate 17 discs
- Plate 18 skids and swath board (version 1)
- Plate 19 skids and swath board (version 2)
- Plate 20 bar protective cover

Part Number Directory

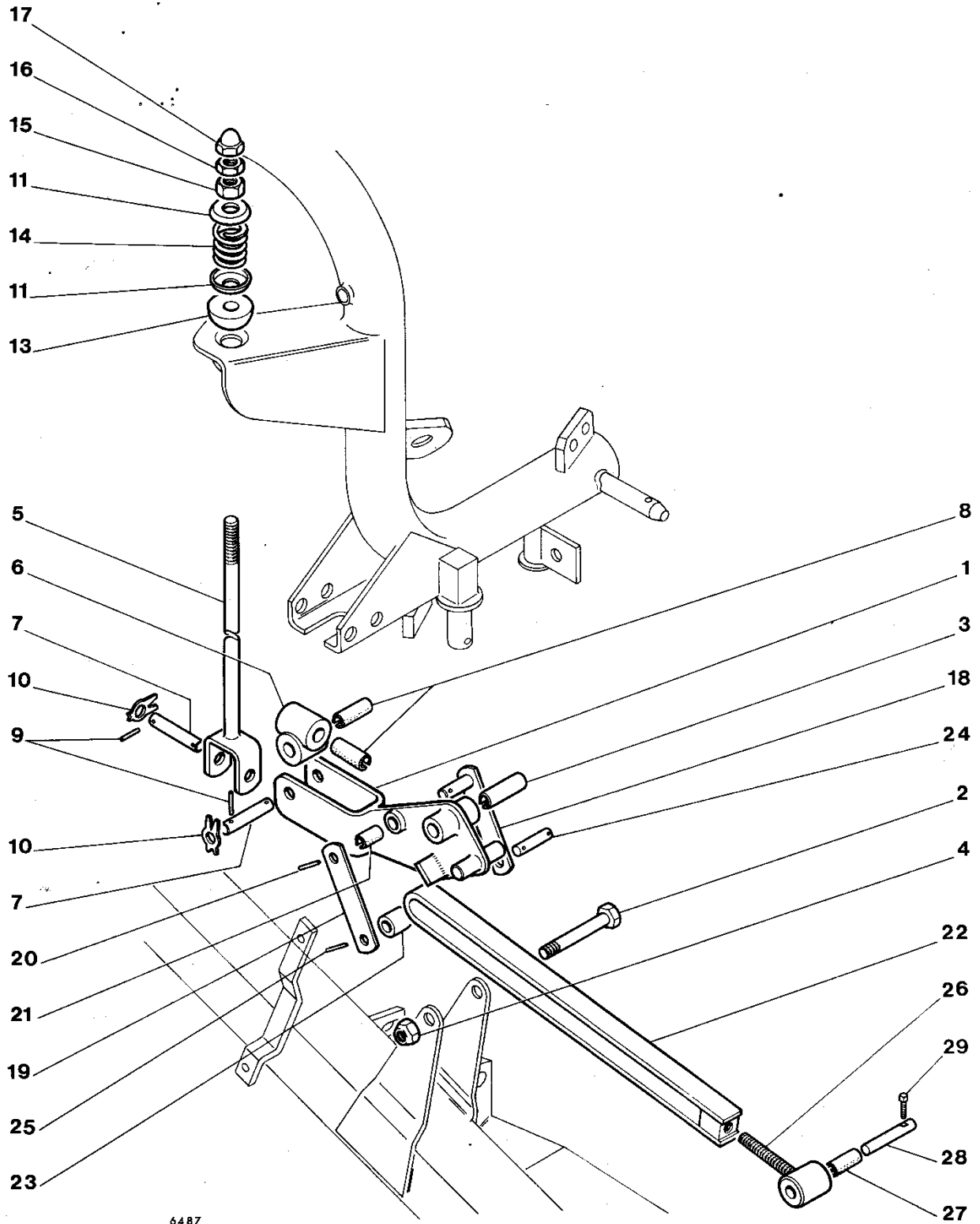


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Frame and safety latch (version 2)**PLATE 2**

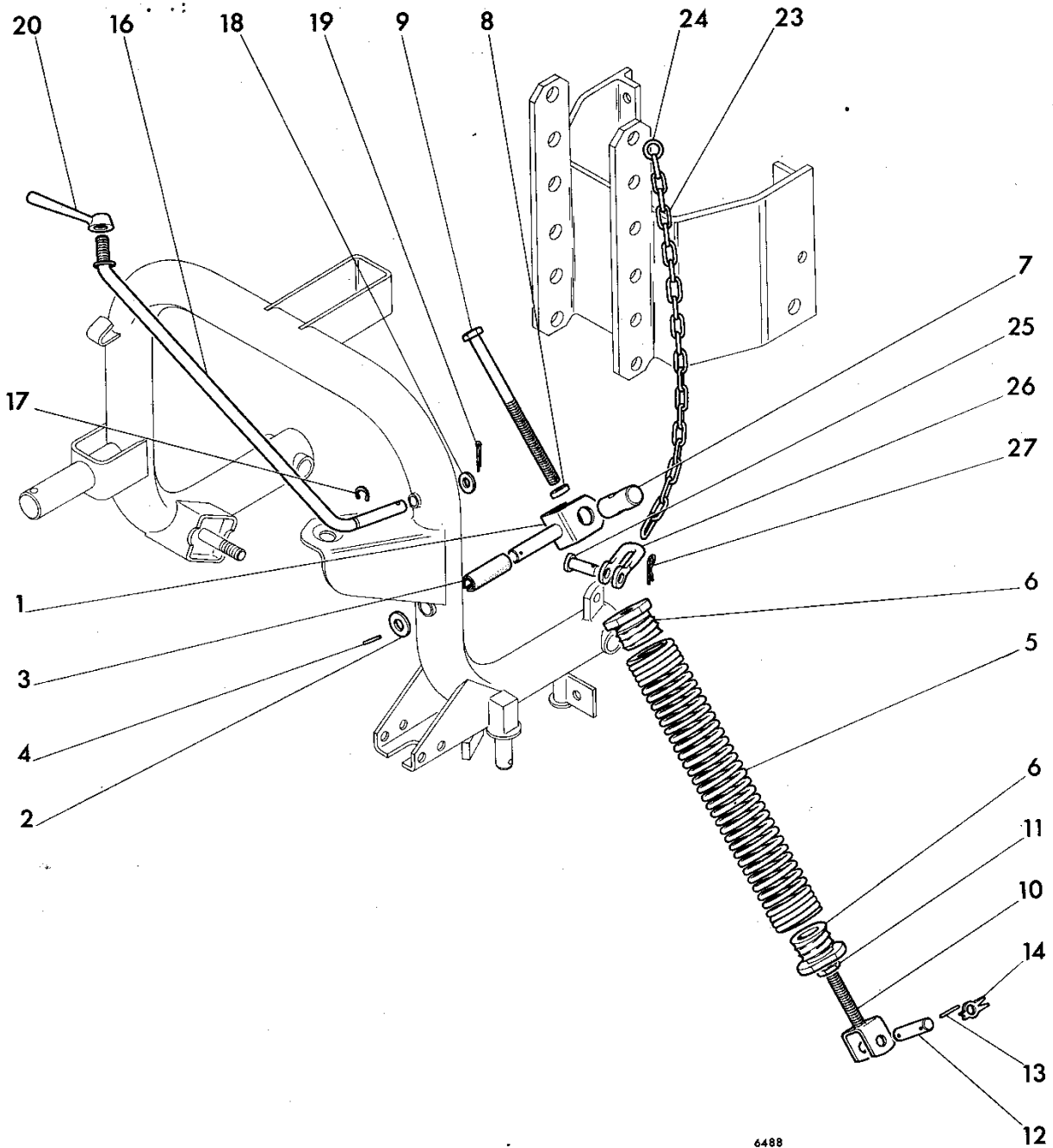
Item No.	Part No.	Description	Quantity	Comments
1	44.036.963	Frame	1	
2	44.036.238	Yoke	1	
3	44.802.689	Screw HM 12 x 1.25 - 30	2	
4	44.801.355	Nyloc nut M 12 X 1.25	2	
6	44.036.257	Security plate	1	
7	44.036.258	Hex screw M12 x 1.25	1	
8	44.037.312	Compression spring 5.5 x 27.5 x 125.5	1	Replaces 44.036.259
9	44.880.323	Flat washer Ø 12	1	
10	44.801.013	Nut HM 12 x 1.25	1	
11	44.801.066	Nut HM 12 x 1.25 lock	1	
12	44.036.263	Safety lever	1	
13	44.036.264	Nylon sleeve	1	
14	44.036.265	Stop ring	1	
15	44.820.769	Spring pin E 6 x 45	1	
18	-	Safety link (see plate 6)	1	
19	44.036.269	Pin	1	
20	44.308.363	R clip	3	
22	44.036.836	Stand	1	
			1	
			1	
25	44.036.865	Spacer	2	
26	44.036.866	Adapter sleeve – category II	2	

PLATE 3



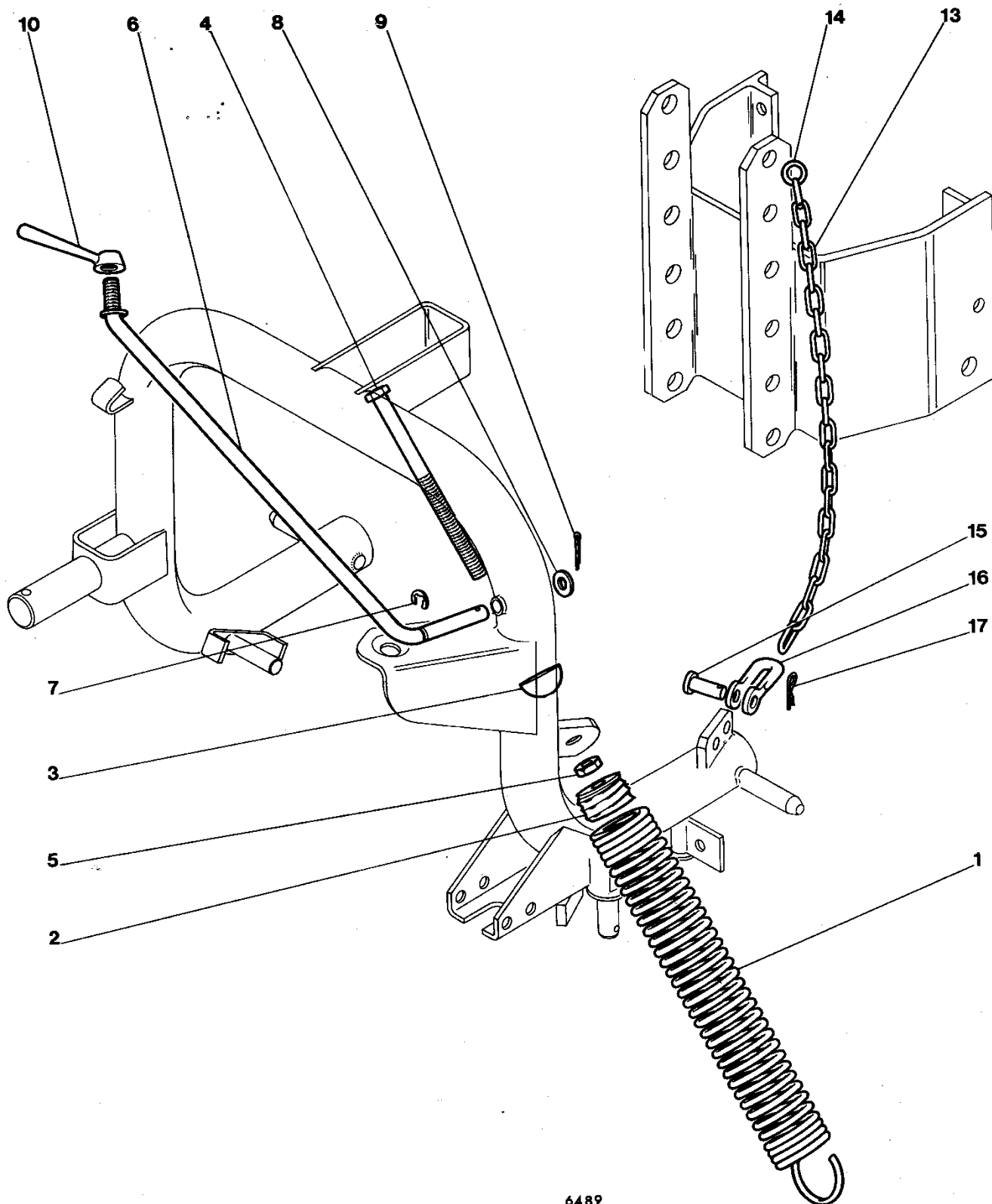
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Bar suspension			PLATE 3	
Item No.	Part No.	Description	Quantity	Comments
1	44.036.393	Lifting arm	1	
2	44.803.241	HM screw 14 x 1.50 - 90	1	
3	44.036.394	Nylon sleeve	1	
4	44.801.356	Nyloc nut M 14 x 1.50	1	
5	44.036.397	Welded lifting rod	1	
6	44.036.380	Universal joint	1	
7	44.036.398	Clevis pin	2	
8	44.036.399	Nylon sleeve	2	
9	44.820.546	Spring pin E 4 X 25	4	
10	44.882.236	Lock washer 14	2	
11	44.317.095	Spring retainer	2	
13	44.036.400	Ball joint	1	
14	44.036.402	Shock absorber spring	1	
15	44.801.015	Nut HM 16 x 1.50	1	
16	44.801.068	Nut HM 16 x 1.50 lock	1	
17	44.890.160	Acorn nut M 16 x 1.50	1	
18	44.036.405	Front-side link	1	
19	44.036.403	Rear-side link	1	
20	44.820.546	Spring pin E 4 x 25	1	
21	44.036.406	Nylon sleeve \varnothing 14	1	
22	44.036.409	Tension link	1	
23	44.036.410	Bush	1	
24	44.036.412	Tie rod articulation pin	1	
25	44.820.546	Spring pin E 4 X 25	2	
26	44.036.415	Lifting eye	1	
27	44.036.399	Nylon sleeve	1	
28	44.036.424	Lower pin	1	
29	44.882.299	QP grubscrew M 6 x 1.00 - 16	1	



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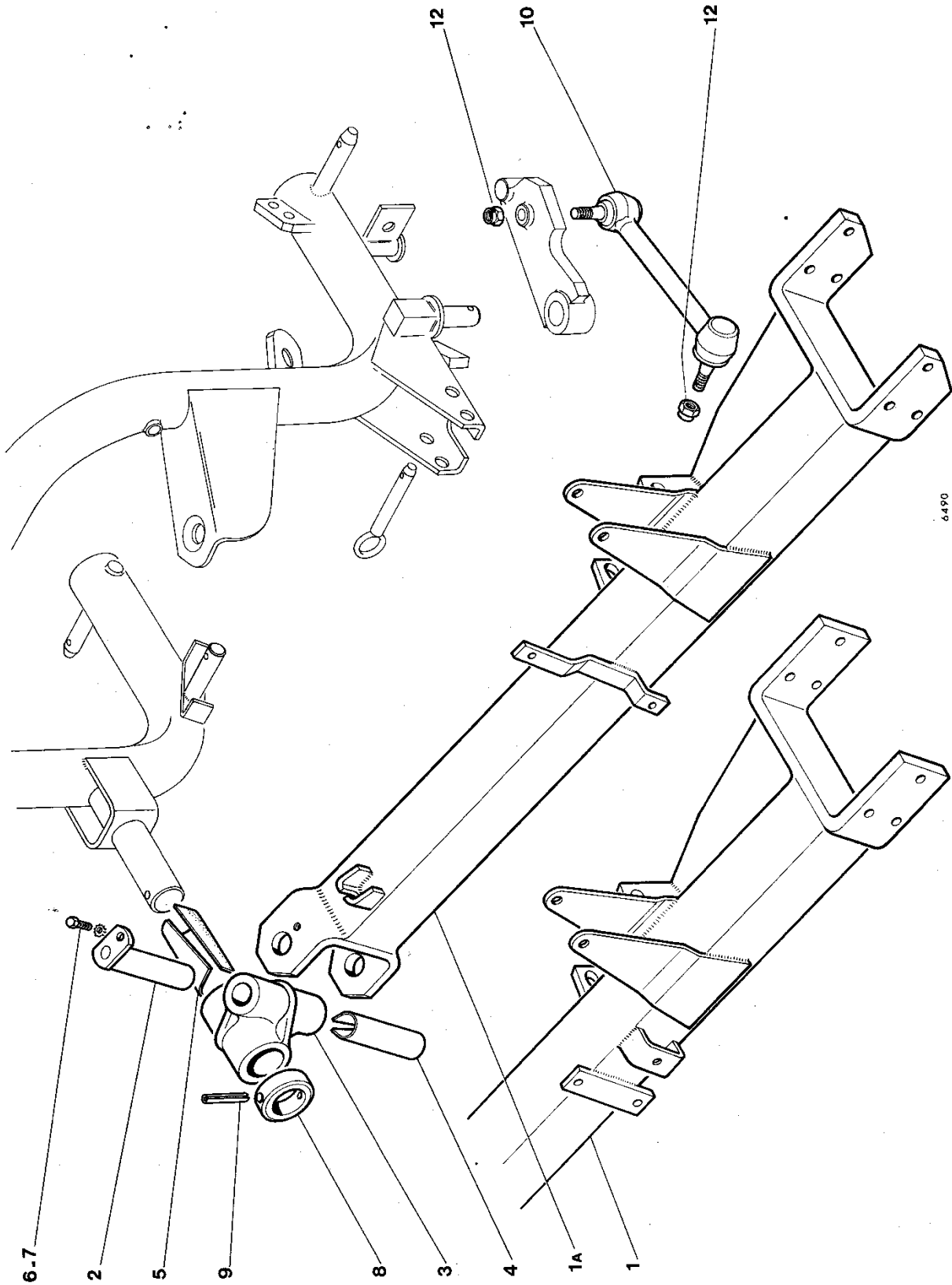
Stabilising mechanism (version 1)			PLATE 4	
Item No.	Part No.	Description	Quantity	Comments
1	44.036.452	Yoke - upper	1	
2	44.815.010	Flat washer Z 20 U	1	
3	44.036.422	Nylon sleeve	1	
4	44.820.566	Spring pin E 5 x 30	1	
5	44.036.416	Compensating spring	1	
6	44.036.417	Spring end	2	
7	44.036.418	Yoke pin	1	
8	44.036.419	Washer	1	
9	44.036.420	Spring tension screw	1	
10	44.036.423	Welded yoke - lower	1	
11	44.801.068	Nut HM 16 x 1.50 lock	1	
12	44.036.398	Clevis pin	1	
13	44.820.546	Spring pin E 4 X 25	2	
14	44.882.236	Lock washer 14	1	
16	44.036.426	Support rod with spring clip	1	
17	44.037.149	Spring clip 16	1	
18	44.815.008	Flat washer Z 16 U	1	
19	44.882.238	Pin V 4 x 40	1	
20	44.036.427	Locking lever nut	1	
-	44.036.357	Stabilising chain with ring including the items 23 and 24	1	
23	44.036.355	- Stabilising chain only	1	
24	44.306.356	- Ring	1	
25	44.315.280	Shackle pin	1	
26	44.315.235	Shackle	1	
27	44.312.048	R clip	1	

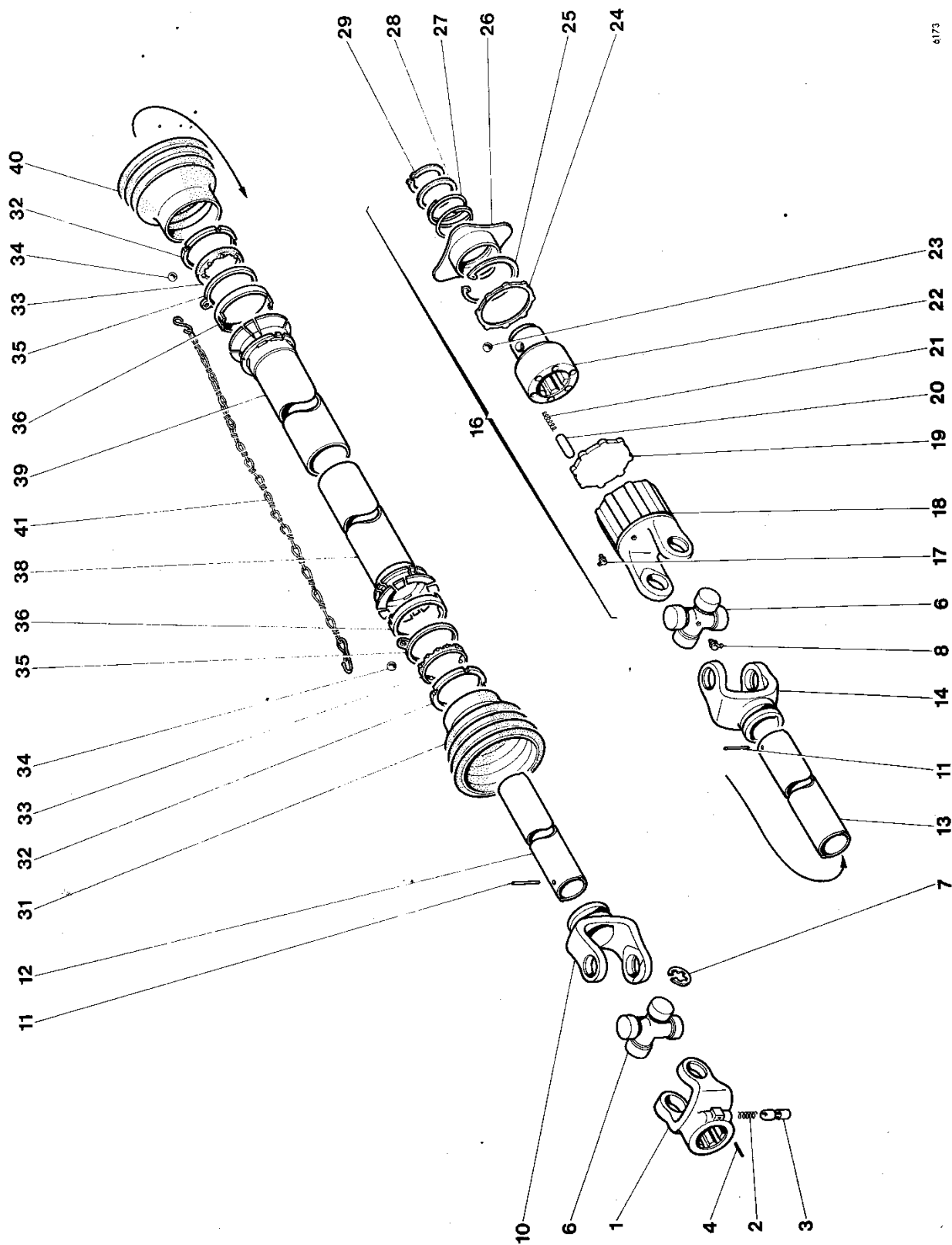


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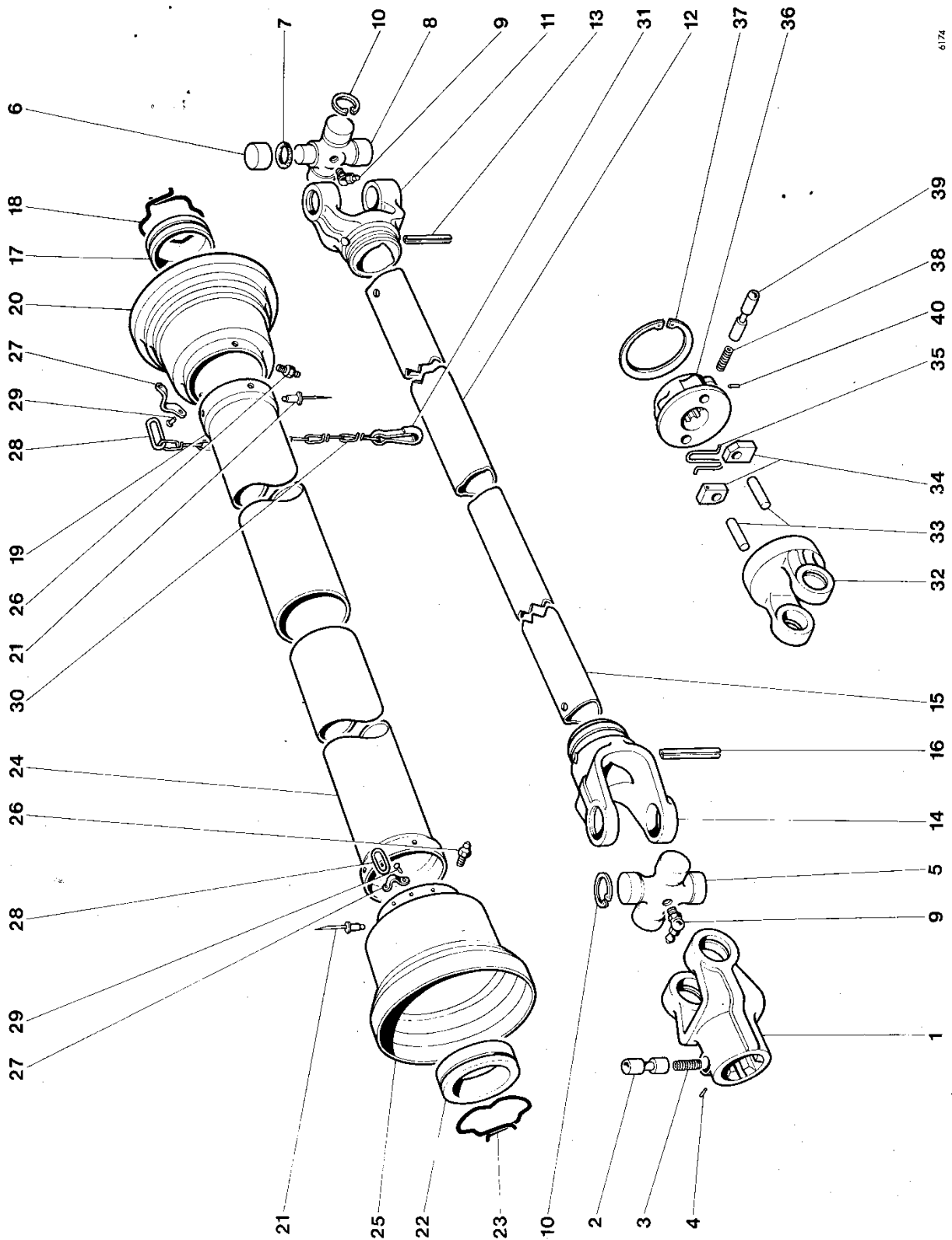
Stabilising mechanism (version 2)**PLATE 5**

Item No.	Part No.	Description	Quantity	Comments
1	44.036.871	Compensating spring	1	
2	44.036.872	Spring end	2	
-			1	
3	44.036.400	Ball joint	1	
4	44.036.420	Spring tension screw	1	
5	44.801.068	Nut HM 16 x 1.50 lock	1	
6	44.036.426	Support rod with spring clip	1	
7	44.037.149	Spring ring 16	1	
8	44.815.008	Flat washer Z 16 U	1	
9	44.882.238	Pin V 4 x 40	1	
10	44.036.427	Locking lever nut	1	
-	44.036.357	Stabilizing chain with ring including items 23 and 24	1	
13	44.036.355	- Stabilising chain only	1	
14	44.036.356	- Ring	1	
15	44.315.280	Shackle pin	1	
16	44.315.235	Shackle	1	
17	44.312.048	R clip	1	



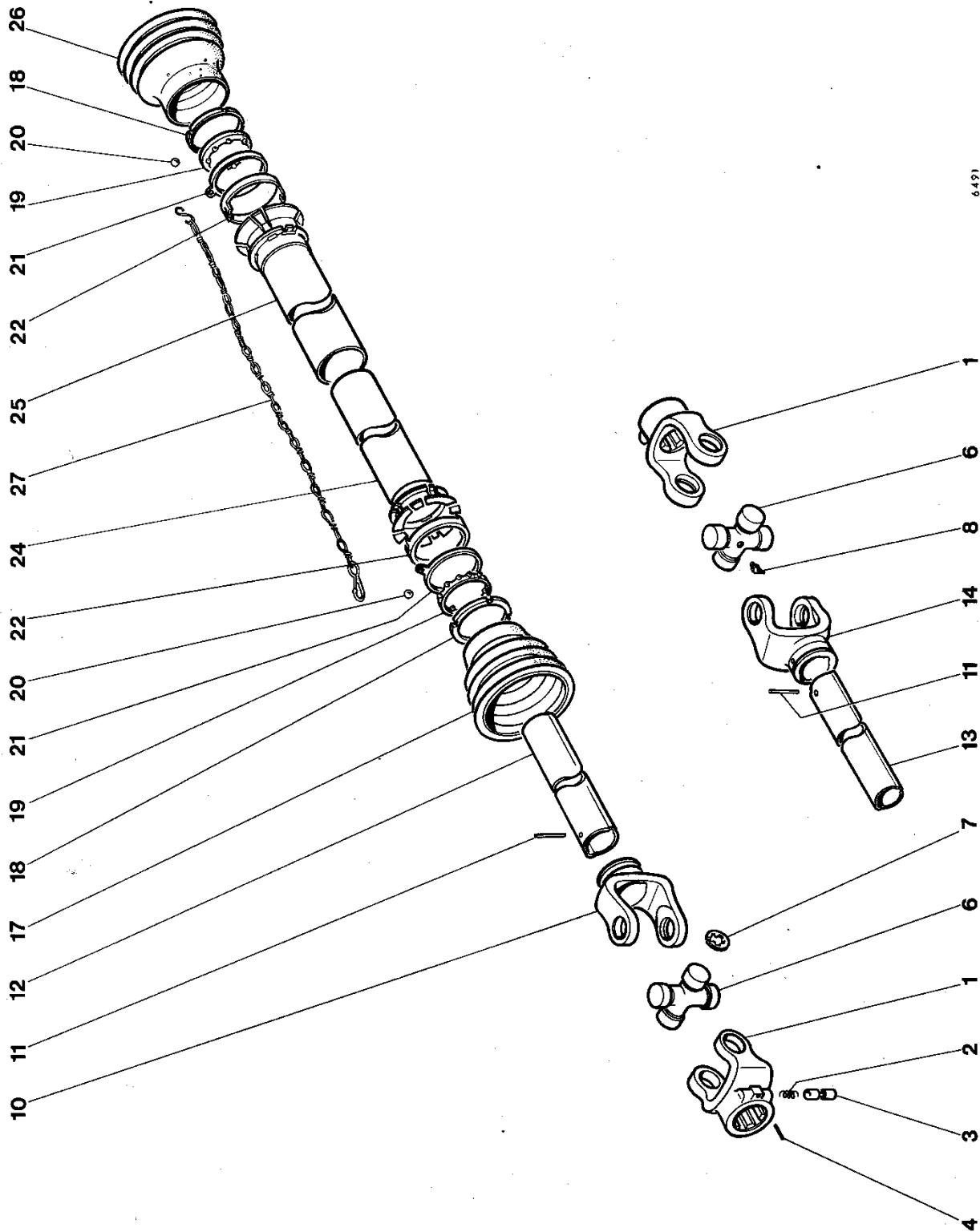


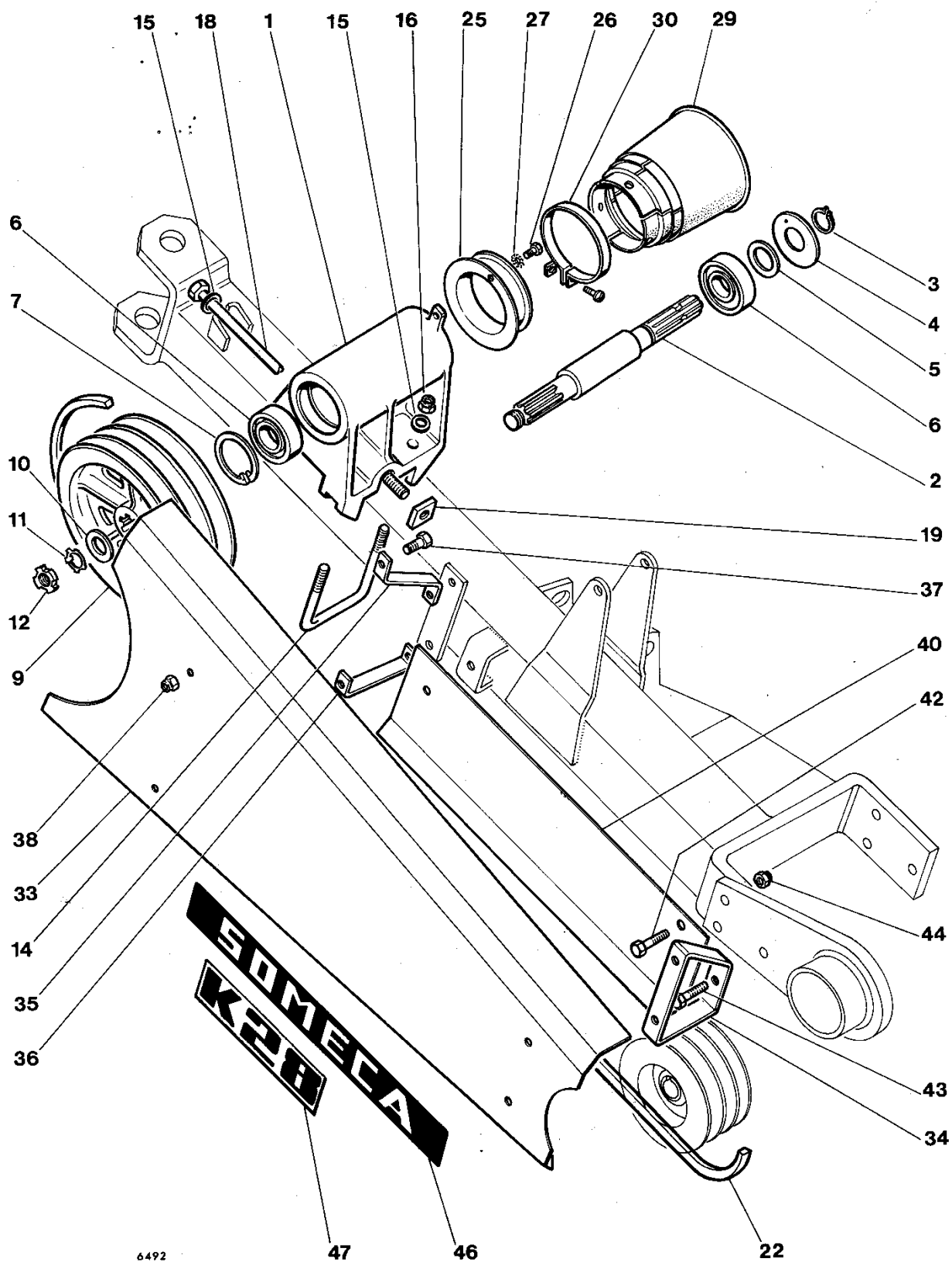
Glaenzer Walterscheid transmission (with freewheel)				PLATE 7
Item No.	Part No.	Description	Quantity	Comments
-	62.710.221	Complete transmission (600mm mini universal joint spacing)	1	
1	44.378.041	Quick Coupling yoke 1-3/8" spline	1	Repl 2-3-4
2	44.378.042	Locking spring	1	
3	44.378.043	Locking push-pin	1	
4	44.378.044	Stop pin Ø3 x 20	1	
6	44.378.045	Universal joint cross with circlip and grease nipple	2	
7	44.378.048	Circlips	8	
8	44.378.229	Grease nipple Ø 8 x 1.00 at 45°	2	
10	44.378.156	Grooved yoke for 0.V tube	1	
11	44.378.268	Spring pin Ø 10 x 65	2	
12	62.710.222	Inner transmission tube 0.V 490 mm long	1	
13	62.710.223	Outer transmission tube 1 long 475 mm long	1	
14	44.378.169	Grooved yoke for tube 1	1	
16	62.710.224	Freewheel assembly complete with yoke	1	Repl 17 & 29
17	44.836.031	Grease nipple Ø 8 x 1.00 at 90°	1	
18	62.710.225	Case with welded yoke	1	
19	62.710.226	Freewheel back plate	1	
20	62.710.227	Cylindrical cam	6	
21	44.378.787	Cam spring	6	= 44.378.042
22	62.710.228	Splined hub	1	
23	44.881.150	Ball Ø 1/2"	3	
24	62.710.229	Spacer	1	
25	44.378.133	Circlip Ø 80 x 2.5 inside	1	
26	44.378.134	Axial lock	1	
27	44.378.135	Spring	1	
28	44.378.136	Spacer washer	1	
29	44.378.137	Circlip Ø 42 x 1.75 outside	1	
31	62.710.230	Protection cone for tractor side length 115 mm	1	
32	44.378.806	Notched ring	2	
33	44.378.791	Complete ball carrier ring	2	
34	44.378.058	Ball Ø 3/8 "	16	
35	44.378.807	Lock ring	2	
36	44.378.808	Lock collar	2	
38	62.710.231	Protective inner tube 420 mm lonh		
39	62.710.232	Protective outer tube with end cap 420 mm long	1	
40	62.710.220	Freewheel side protection cone 100 mm long	1	
41	44.378.814	Anchoring chain	1	



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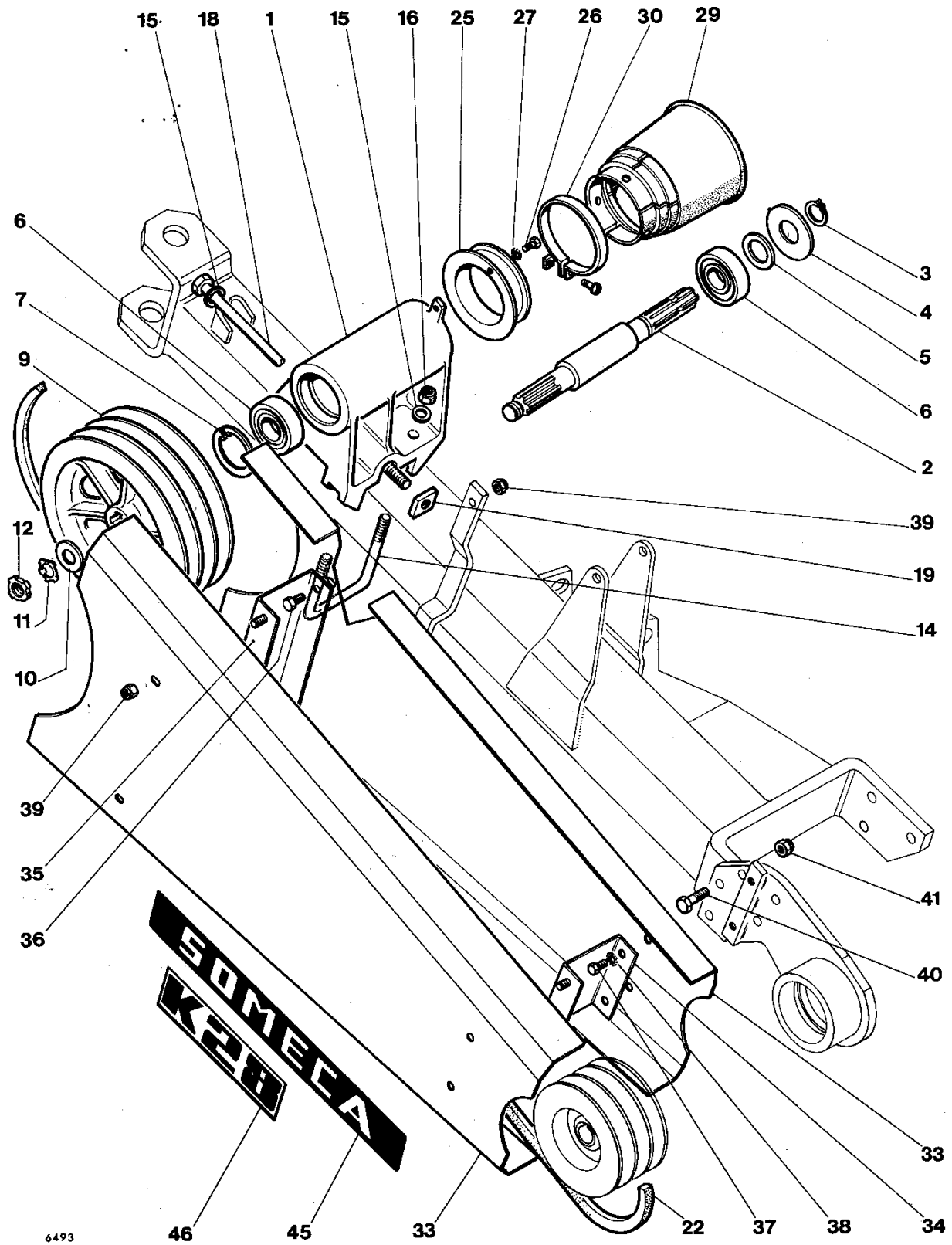
Bondioli transmission			PLATE 8	
Item No.	Part No.	Description	Quantity	Comments
-		Complete transmission including rep. 1 to 40	-	
1	44.378.776	Complete locking jaw including items 2 - 3 - 4	1	
2	44.378.755	Push pin	2	
3	44.378.754	Push pin spring	2	
4	14163370	Spring pin Ø 4 X 8	2	
5	44.378.765	Complete universal cross including items 6 to 9	2	
6	44.378.766	Cup with needle bearings	8	
7	44.378.767	Dust seal	8	
8	44.378.768	Universal cross only	2	Not available individually
9	44.881.643	Grease nipple Ø 10 x 1.00 elbow at 45°	1	
10	44.055.472	Circlip 27 i	8	
11	44.378.769	Yoke for female tube	1	
12	44.378.746	Female transmission tube 470 mm long	1	
13	14171170	Spring pin Ø 8 x 60	1	
14	44.378.775	Yoke for male tube	1	
15	44.378.774	Male transmission tube 485 mm long	1	
16	14170970	Spring pin Ø 8 x 50	1	
17	44.378.741	Yoke ring 44.378.769	1	
18	44.378.742	Circlip for yoke 44.378.769	1	
19	62710313	female protective tube 420 mm long	1	
20	44.378.744	Protective cone for female tube	1	
21	44.378.743	Rivet 4 x 12	4	
22	44.378.749	Yoke ring 44.378.775	1	
23	44.378.750	Circlip for yoke 44.378.775	1	
24	44.378.748	Male protection tube 420 mm long	1	
25	44.378.752	Protective cone for male tube	1	
26	44.378.756	Grease nipple Ø 6 x 100 - 15 straight	2	
27	44.378.757	Anchor for chain	2	
28	44.378.758	Chain for anchor	2	
29	44.378.759	Rivet Ø 4 x 16 for anchor	4	
30	44.378.760	Chain 600 mm long	1	
31	44.378.761	Clip	1	
32	62.710.312	Freewheel body with yoke (for type A 20)	1	
33	62.721.029	Ratchet pin	2	
34	62.721.030	Pawl	2	
35	62.721.031	Pawl spring	1	
36	62.721.028	Freewheel splined hub	1	
37	62.721.032	Circlips	1	
38	62.720.408	Push pin spring	1	
39	62.720.993	Push pin	1	
40	14163370	Spring pin Ø 4 x 8	1	

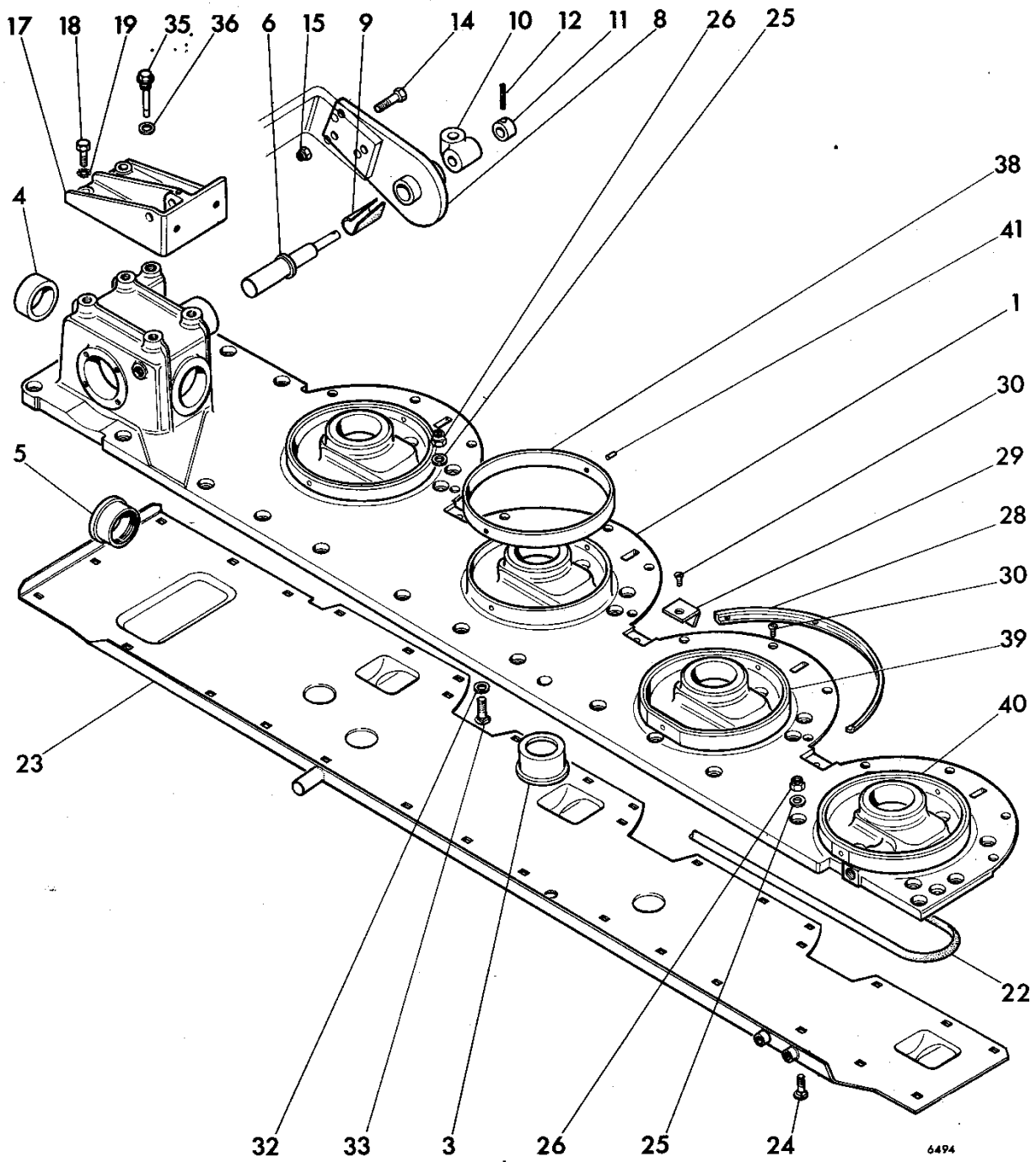




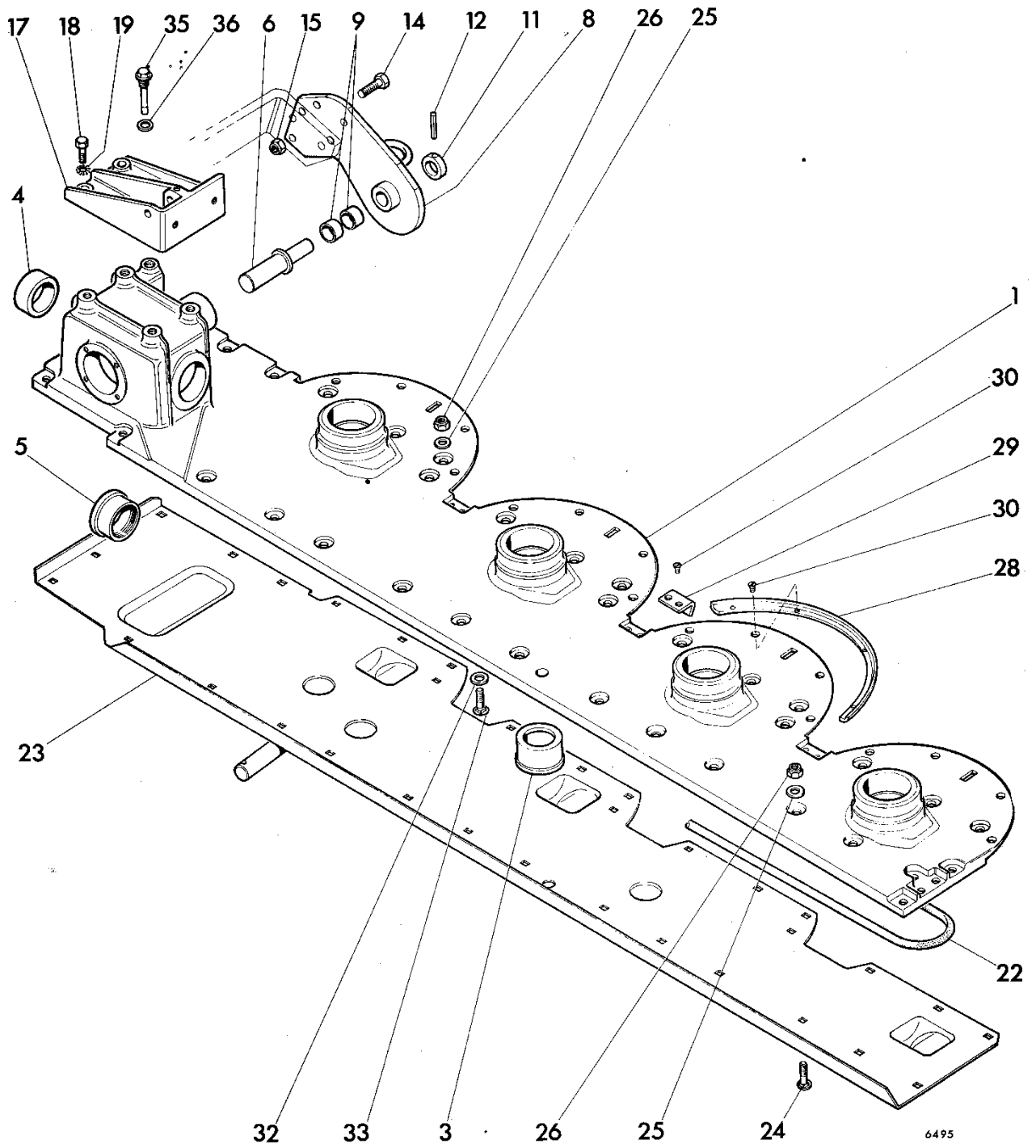
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Belt drive and guards (version 1)			PLATE 10	
Item No.	Part No.	Description	Quantity	Comments
1	44.036.279	Drive housing	1	
2	44.036.280	Drive shaft	1	
3	44.850.025	Circlip 35 e	1	
4	44.036.287	Washer 35.5 X 71 - 3	1	
5	44.308.917	Washer 36 X 47 - 1	1	
6	44.881.516	Double sealed ball bearing	2	
7	44.850.555	Circlip 72 i	1	
9	44.036.281	Drive pulley	1	
10	44.036.820	Washer 29 x 46 - 4	1	Repl 44.304.179
11	44.881.712	28 tab lock washer	1	
12	44.002.998	Slotted nut M 28 x 1.50	1	
14	44.036.282	U-bolt	2	
15	44.815.006	Flat washer Z 12 U	5	
16	44.801.355	Nyloc nut M 12 X 1.25	4	
18	44.036.283	Hex head tension screw	1	
19	44.036.284	Square nut	1	
22	44.036.286	Set of 3 v-belts no. 44.036.285 19 x 17 x 2585 long		
25	44.036.433	Mount for protector cone	1	
26	44.803.,073	Screw HM 6 X 1.00 – 16	2	
27	44.815.303	Washer DE 6	2	
-				
29	44.036.434	Protector cone	1	
30	44.036.435	Hose clamp with screw and nut	1	
33	44.036.436	V-belt guard	1	
34	44.036.437	Guard driven end support	1	
35	44.036.438	Guard drive end upper support	1	
36	44.0360439	Guard drive end lower support	1	
37	44.803.105	Screw HM 8 x 1.25 - 20	5	
37	44.803.107	Screw HM 8 x 1.25 - 25	2	
38	44.801.353	Nyloc nut M 8 X 1.25	7	
40	44.036.440	Deflector	1	
42	44.803.192	HM screw 12 x 1.25 - 45	2	
43	44.803.193	HM screw 12 x 1.25 - 50	1	
44	44.801.355	Nyloc nut M 12 x 1.25	3	
46	44.010.832	SOMECA label	1	
47	44.036.446	K28 label	1	



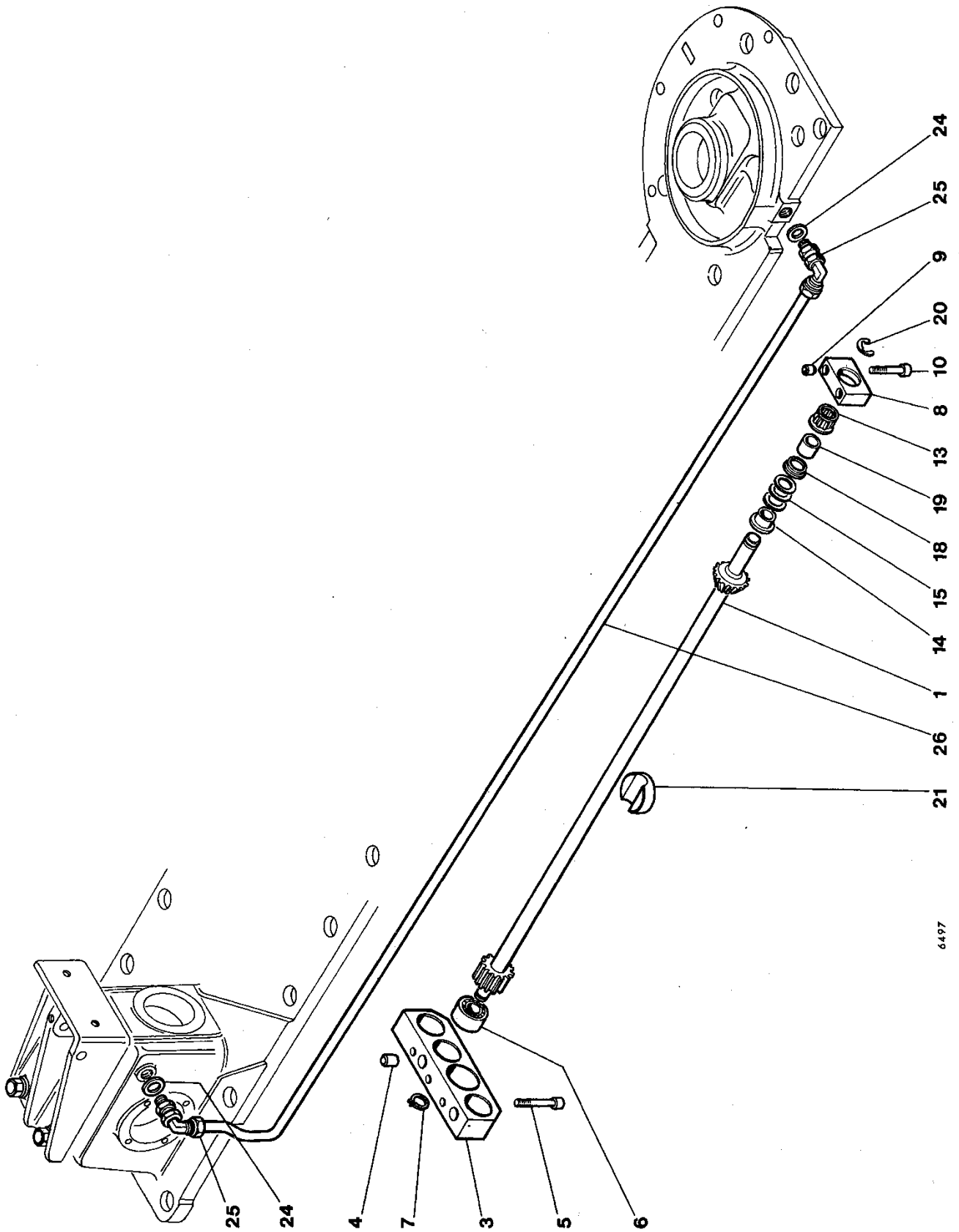


Bar body (version 1)			PLATE 12	
Item No.	Part No.	Description	Quantity	Comments
1	44.036.344	Bar including items 3 to 5	1	
3	44.036.289	Vertical shaft sleeve	4	
4	44.036.345	Secondary shaft left sleeve	1	
5	44.036.346	Secondary shaft right sleeve	1	
6	44.036.314	Pivot pin	1	
8	44.036.318	Welded hinge bracket leading	1	
9	44.036.379	Nylon sleeve	1	
10	44.036.380	Joint spring hinge	1	
11	44.036.381	Collar	1	
12	44.820.768	Spring pin E 6 X 40	1	
14	44.803.192	Screw HM 12 x 1.25 - 45	3	
15	44.801.355	Nyloc nut M 12 X 1.25	3	
17	44.036.333	Lifting bracket	1	
18	44.803.189	Screw HM 12 x 1.25 - 30	4	
19	44.815.307	Washer DE 12	4	
22	44.036.298	Rubber seal Ø 10	1	
23	44.036.689	Steel pan	1	Replaces 440.363.40
24	44.882.306	Screw SC 8 x 1.25 - 30	17	
25	44.815.004	Washer Z 8 U	17	
26	44.801.353	Nyloc nut M 8 x 1.25	17	
28	44.036.374	Protective nosing	4	
29	44.036.377	1 hole wear plate	3	
29	44.036.878	2 hole wear plate	3	
30	44.811.793	Screw F/90° M 8 x 1.25 - 16	19	
32	44.036.373	Spring washer	7	
33	44.882.312	Screw F/90° M 8 x 1.25 - 35	9	
35	44.036.385	Filler cap and dipstick	1	
36	44.890.139	Copper washer Ø 18 X 24 - 1.5	1	
38	44.036.941	Collar for 1st and 2nd disc	2	
39	44.037.142	Collar for 3rd disc	1	
40	44.037.141	Collar for 4th disc	1	
41	44.820.562	Pin E 5 x 15	8	



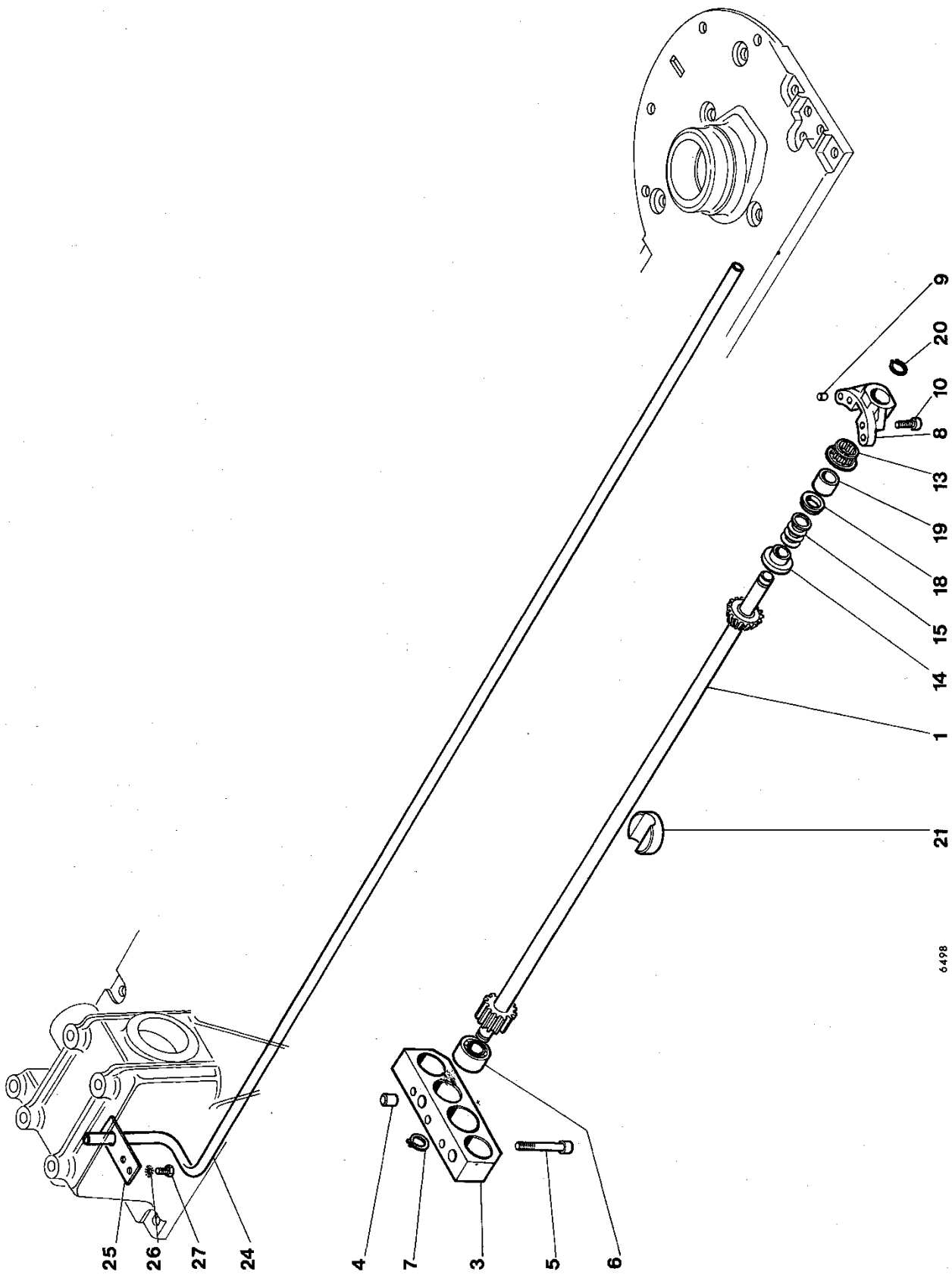
Bar body (version 2)			PLATE 13	
Item No.	Part No.	Description	Quantity	Comments
1	44.037.136	Bar including items 3 to 5	1	
3	44.037.022	Vertical shaft sleeve	4	
4	44.036.345	Secondary shaft left sleeve	1	
5	44.036.346	Secondary shaft right sleeve	1	
6	44.036.957	Pivot pin	1	
8	44.037.160	Welded hinge leading with sleeve item 9	1	
9	44.037.159	Self-lubricating sleeve	2	
11	44.036.458	Stop collar	1	
12	44.820.570	Spring pin E 5 X 50	1	
14	44.803.192	Screw HM 12 x 1.25 - 45	3	
15	44.801.355	Nyloc nut M 12 x 1.25	3	
17	44.036.333	Lifting bracket	1	
18	44.803.189	Screw HM 12 x 1.25 - 30	4	
19	44.815.307	Washer DE 12	4	
22	44.036.298	Rubber seal Ø 10	1	
23	44.036.857	Steel pan	1	
24	44.882.306	Screw SC 8 x 1.25 - 30	17	
25	44.815.004	Washer Z 8 U	19	
26	44.801.353	Nyloc nut M 8 x 1.25	19	
28	44.037.029	Protective nosing	4	
29	44.036.878	2 hole wear plate	3	
30	44.890.234	Screw F/90° M 8 x 1.25 - 16	22	
32	44.036.373	Spring washer	7	
33	44.882.312	Screw F/90° M 8 X 1,25 - 35	7	
35	44.036.385	Filler cap and dipstick	1	
36	44.890.139	Copper washer Ø 18 x 24 - 1.5	1	

Right-angle gearbox			PLATE 14	
Item No.	Part No.	Description	Quantity	Comments
1	44.036.363	Secondary shaft	1	
2	44.850.025	Circlip 35 e	1	
3	44.036.364	Spur gear 47 tooth	1	
4	44.036.365	Bevel gear 20 tooth	1	
5	44.036.733	Ball bearing 6206 30 x 62 - 16	2	
6	44.850.020	Circlip 30 e	2	
7	44.036.366	Adjusting shim 0.12 mm	2) Or as
	44.036.367	Adjusting shim 0.2 mm	2) required
10	44.036.368	Retainer	1	
11	44.803.107	Screw HM 8 x 1.25 - 25	3	
12	44.815.305	Washer 8 DE	3	
13	44.036.369	Retainer cap	1	
15	44.036.362	Bevel gear 21 tooth	1	
16	44.036.322	Pivot housing	1	
17	44.036.358	Input (primary) shaft	1	
18	44.880.549	Circlip 62 i	1	
19	44.036.733	Ball bearing 6206 30 X 62 - 16	2	
20	44.036.359	Bearing spacer	1	
21	44.882.293	Sealing gasket 45 x 62 X 15 IIL	1	
22	44.036.321	Rear hinge arm	1	
22	44.037.155	Rear hinge arm with grease hole	1	
23	44.036.313	Nylon sleeve (for arm 44.036.321)	1	
24	44.882.224	TRUARC inter locking ring 80 mm	1	(2 pieces)
25	44.882.294	Parallel key with straight ends 8 x 50	1	
28	44.036.323	Driven pulley	1	
29	44.036.312	Special washer \varnothing 16.5 x 48 x 5	1	
30	44.801.357	Nyloc nut HM 16 x 1.50	1	
32	44.036.360	Adjusting shim 0.12 mm	2) As
	44.036.361	Adjusting shim 0.2 mm	2) required
34	44.803.107	Screw HM 8 x 1.25 - 25	4	
35	44.815.305	Washer DE 8	4	
37	44.88.1.643	Grease nipple 10 x 1.00 45° angle	1	



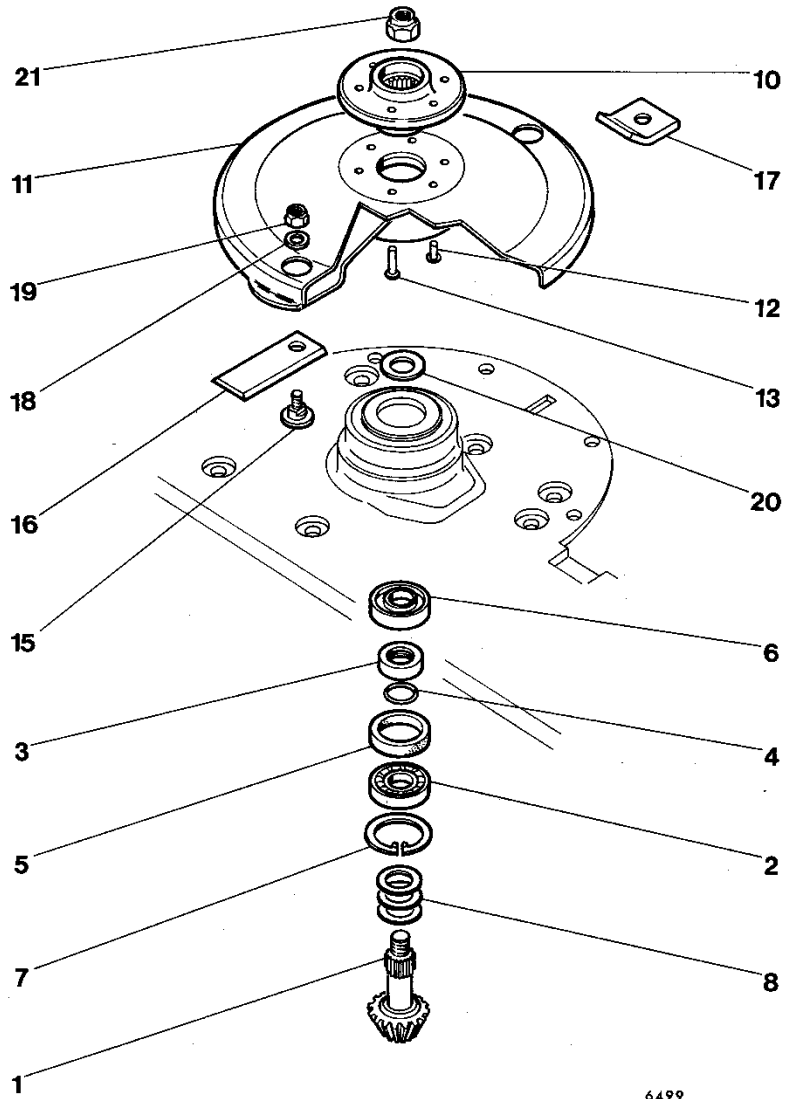
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Disc drive system (version 1)			PLATE 15	
Item No.	Part No.	Description	Quantity	Comments
1	44.037.226	Complete shaft for 1st (innermost) disc 387.5 mm	1	Repl 44.036.292
	44.037.227	Complete shaft 2nd disc 787.5 mm	1	Repl 44.036.293
	44.037.228	Complete shaft 3rd disc 1190.5 mm	1	Repl 44.036.294
	44.037.229	Complete shaft 4th (outermost) disc 1587.5 mm	1	Repl 44.036.295
3	44.036.371	Left bearing of the shafts	1	
4	44.036.372	Locating dowell	2	
5	44.882.297	Hexagon socket head screw M 8 x 1.25 - 60	3	
6	44.036.736	Ball bearing 3302 15 x 42 - 19	1	
	44.036.737	Ball bearing 3302 15 x 35 - 16	3	
7	44.850.005	Circlip 15 th	4	
8	44.036.290	Right shaft bearing	4	
9	44.036.350	Locating dowell	8	
10	44.882.296	Hexagon socket head screw M 8 x 1.25 - 50	8	
13	44.036.348	Combination bearing RAX 720	4	
14	44.036.296	Thrust spacer thickness 11.1 (early model assembly)	4	See NOTE
14	44.037.230	Thrust spacer, thickness 14.6 (later model assembly)	4	See NOTE
15	44.036.824	Adjusting washer mm 0.5)
	44.036.825	Adjusting washer mm 1.5) For adjusting
	44.036.826	Adjusting washer mm 1.6) 44.036.296
	44.036.299	Adjusting washer mm 1.7)
	44.036.300	Adjusting washer mm 1.8)
	44.036.301	Adjusting washer mm 1.9)
18	44.036.347	Backing washer GP 3 20 - 35	4	
19	44.036.349	Inner ring IM 15-20 - 16.4 R 6	4	
20	44.037.314	TRUARC ring of 15	4	Repl 44.850.005
21	44.036.297	Intermediate support	3	
24	44.890.139	Copper gasket 18 x 24 - 1.5	2	
25	44.036.386	Adjustable bracket 12/18 x 1.50	2	
26	44.036.378	Oil return pipe	1	
	NOTE:	When stocks are exhausted, the corresponding new shafts will be delivered plus a thrust spacer 44.037.230 plus a set of adjusting washers from mm 0.5 to 1.9		



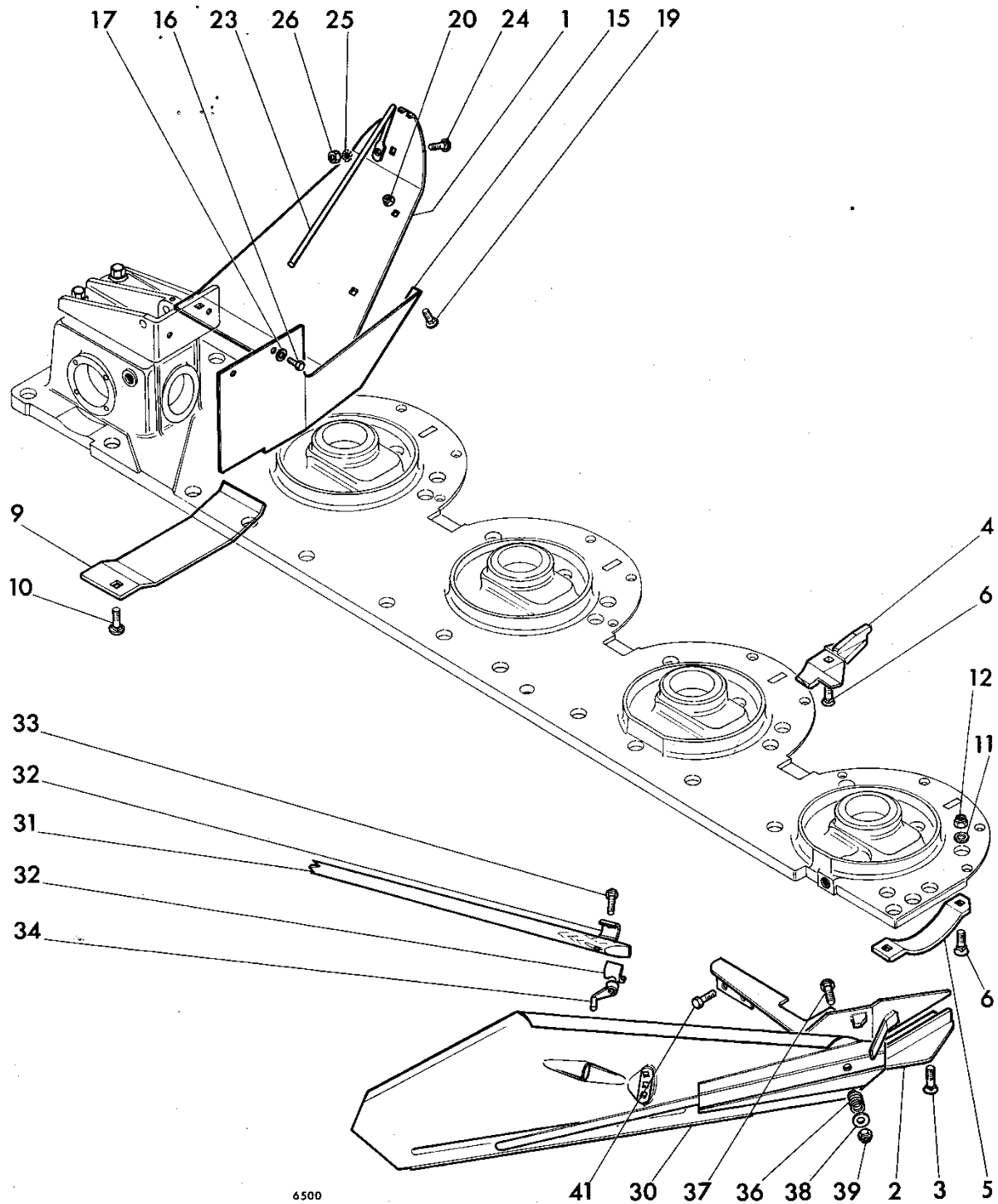
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Disc drive system (version 2)			PLATE 16	
Item No.	Part No.	Description	Quantity	Comments
1	44.037.226	Complete shaft for 1st (innermost) disc 387.5 mm	1	
	44.037.227	Complete shaft 2nd disc 787.5 mm	1	
	44.037.228	Complete shaft 3rd disc 1190.5 mm	1	
	44.037.229	Complete shaft 4th (outermost) disc 1587.5 mm	1	
3	44.036.371	Left bearing of the shafts	1	
4	44.036.372	Locating dowel	2	
5	44.882.297	Hexagon socket head screw M 8 x 1.25 - 60	3	
6	44.036.736	Ball bearing 3302 15 x 42 - 19	1	
	44.036.737	Ball bearing 3202 15 x 35 - 16	3	
7	44.850.005	Circlip 15 th	4	
8	44.037.027	Right shaft bearing	4	
9	44.037.028	Locating dowell	8	
10	44.882.334	Hexagon socket head screw M 8 x 1.25 - 35	8	
13	44.036.348	Combination bearing RAX 720	4	
14	44.037.230	Stop spacer	4	
15	44.037.231	Adjusting washer mm 0.5		As required
	44.037.232	Adjusting washer mm 1.5		As required
	44.037.233	Adjusting washer mm 1.7		As required
	44.037.234	Adjusting washer mm 1.8		As required
	44.037.235	Adjusting washer mm 1.9		As required
18	44.036.347	Backing washer CP 3 20 - 35	4	
19	44.036.349	Inner ring IM 15 - 20 - 16.4 R 6	4	
20	44.037.314	Ring TRUARC 15	4	
21	44.036.842	Intermediate support	3	
24	44.036.847	Oil return pipe	1	
25	44.036.848	Pipe support bracket	1	
26	44.815.303	Washer DE 6	2	
27	44 803.071	Screw HM 6 x 1.00 - 12	2	

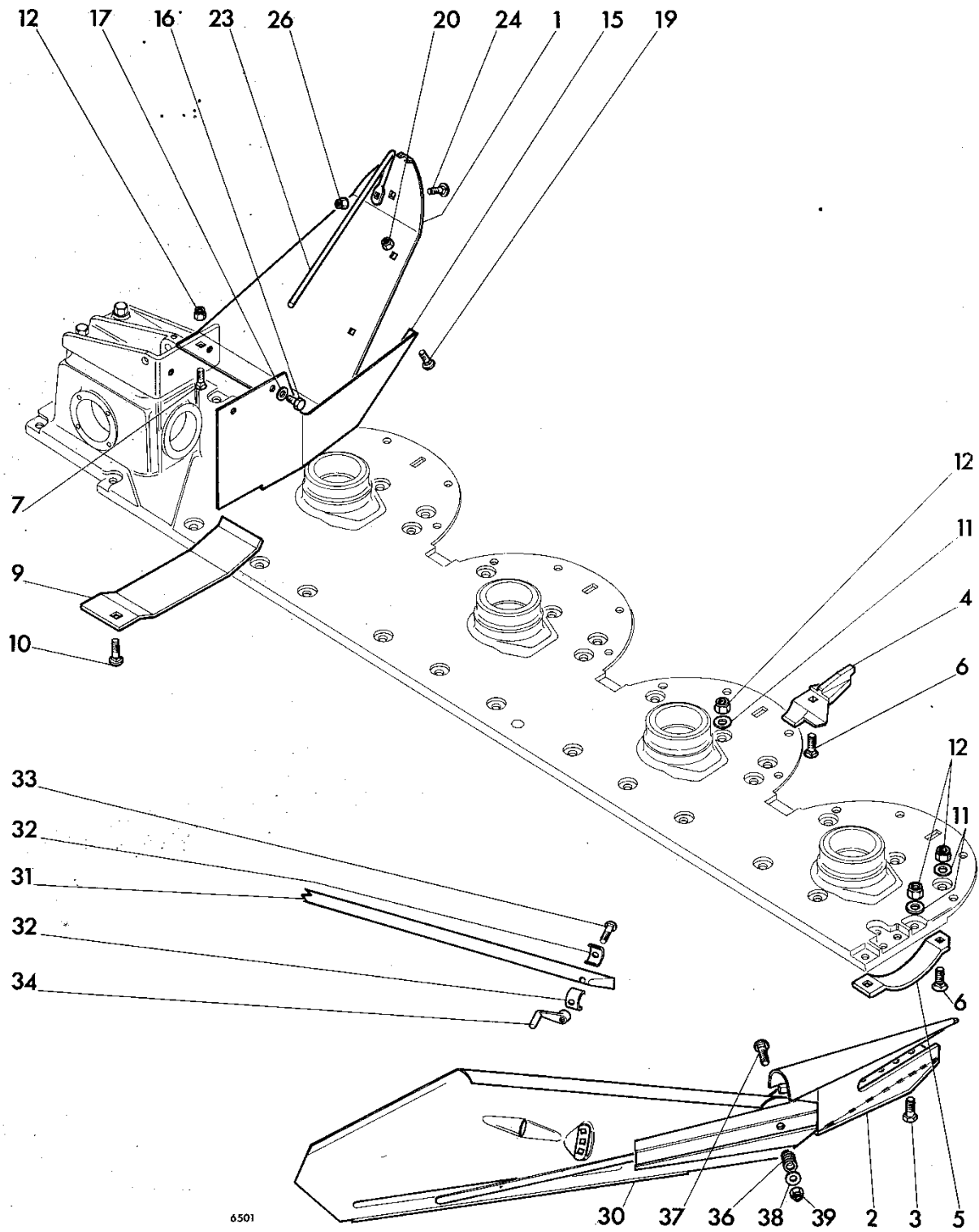


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Discs			PLATE 17	
Item No.	Part No.	Description	Quantity	Comments
1	44.036.291	Pinion shaft	4	
2	44.036.735	Ball bearing 6304 20 x 52 - 15	4	
3	44.037.158	Bearing spacer	4	
4	44.881.193	O-ring no. 15	4	
5	44.882.295	Sealing gasket 35 X 52 - 10 IE	4	
6	44.036.734	Double sealed ball bearing 6304	4	
7	44.850.541	Circlip 52 i	4	
8	44.036.299	Adjusting washer mm 1.7		As required
-	44.036.300	Adjusting washer mm 1.8		As required
-	44.036.301	Adjusting washer mm 1.9		As required
-	44.036.882	Complete disc including items 10 to 13	4	
10	44.036.303	Disc hub	4	
11	44.036.879	Disc alone	4	
12	44.880.429	Rivet R 6 x 20	8	
13	44.880.431	Rivet R 6 x 25	16	
15	44.036.884	Blade bolt	8	
16	44.036.885	Blade	4	
17	44.036.883	Counterweight	4	[May be replaced by blade set]
18	44.037.412	Washer	4	
19	44.801.354	Nyloc nut M 10 x 1.2	8	
20	44.036.341	Special washer		As required
21	44.801.357	Nyloc nut M 16 x 1.50	4	

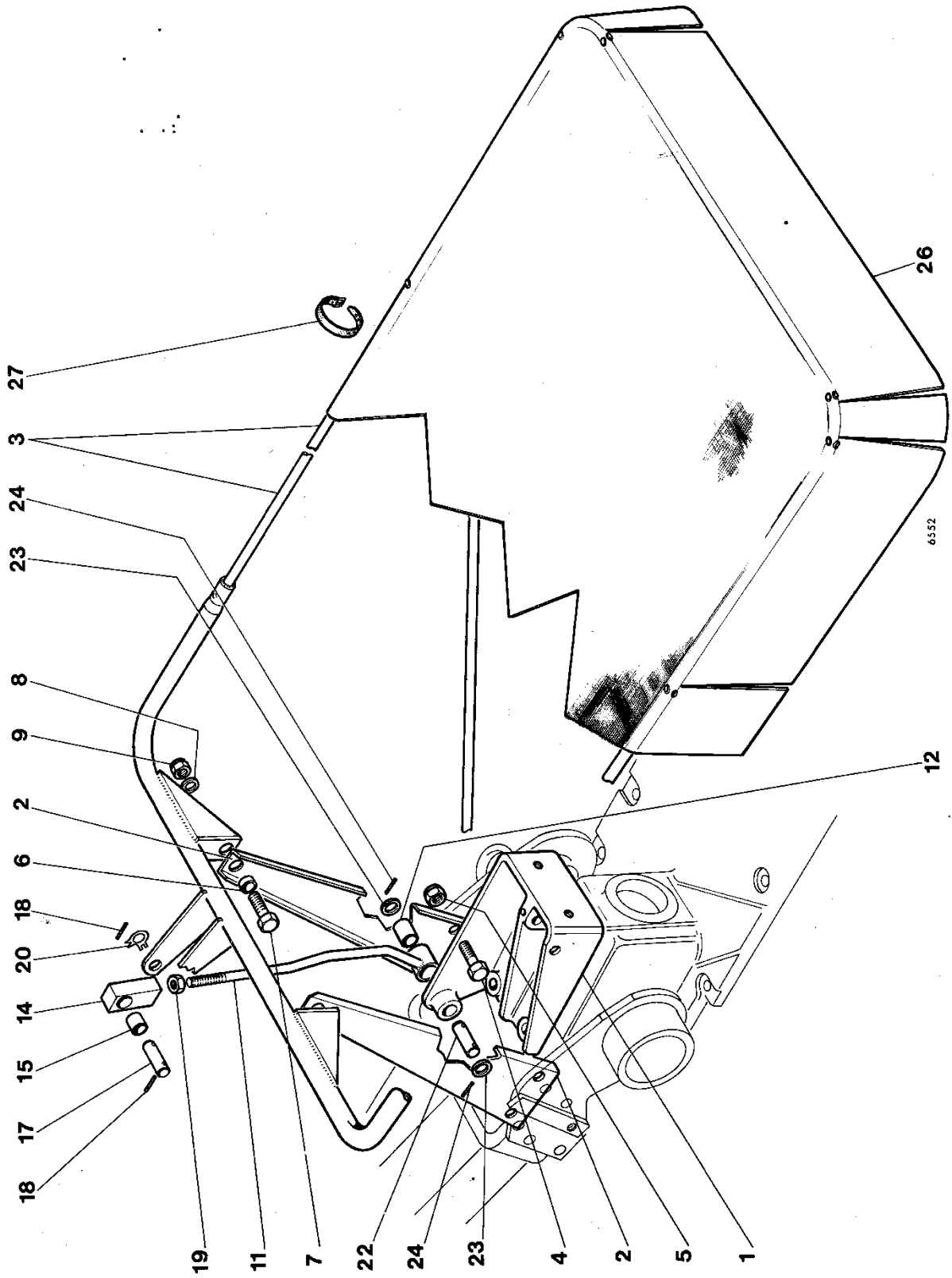


Skids and swath board (version 1)				PLATE 18
Item No.	Part No.	Description	Quantity	Comments
1	44.036.331	Left deflector	1	
2	44.036.329	Complete outer swath board assembly	1	
3	44.882.312	Screw F/90° M 8 x 1.25 - 35	3	
4	44.036.850	Intermediate skid	4	Repl 44.036.343
5	44.036.324	Outer skid	1	
6	44.882.313	Screw F/90° M 8 x 1.25 - 40	6	
9	44.036.330	Inner skid	1	
10	44.882.307	Screw SC M 8 x 1.25 - 35	1	
11	44.815.004	Washer Z 8 U	19	
12	44.801.353	Nyloc nut M 8 X 1.25	19	
15	44.037.032	Gearbox guard	1	Repl 44.036.332
16	44.803.101	Screw HM 8 x 1.25 - 12	2	
17	44.815.039	Washer L 8 U	2	
19	44.881.949	Screw SC M 8 x 1.25 - 20	2	
20	44.801.353	Nyloc nut HM 8 X 1.25	2	
23	44.036.315	Hay guide rod	1	
24	44.881.940	Screw SC M 10 X 1.25 - 25	1	
25	44.815.306	Washer DE 10	1	
26	44.801.012	Nut HM 10 x 1.25	1	
30	44.036.444	Swath board	1	
31	44.320.393	Windrow guide stick	1	
32	44.036.188	Half clamp	2	
33	44.881.990	Screw SC M 8 x 1.25 - 50	1	
34	44.320.395	Hand nut	1	
36	44.305.892	Compression spring	1	
37	44.882.145	Screw SC M 12 x 1.25 - 75	1	
38	44.815.041	Washer L 12 U	1	
39	44.801.355	Nyloc nut M 12 x 1.25	1	
41	44.803.559	Screw HM 8 x 1.25 - 30	2	



6501

Skids and swath board (version 2)			PLATE 19	
Item No.	Part No.	Description	Quantity	Comments
1	44 036.331	Left deflector	1	
2	44:036.863	Complete outer swath board assembly	1	
3	44.803.559	Screw HM 8 x 1.25 - 30	4	
4	44.036.850	Intermediate skid	4	
5	44.036.324	Outer skid	1	
6	44.882.313	Screw F/90° M 8 x 1.25 - 40	6	
7	44.882.312	Screw F/90° M 8 x 1.25 - 35	2	
9	44.036.330	Inner skid	1	
10	44.882.307	Screw SC M 8 x 1.25 - 35	1	
11	44.815.004	Washer Z 8 U	18	
12	44.801.353	Nyloc nut M 8 X 1.25	18	
15	44.037.032	Gearbox guard	1	
16	44.803.101	Screw HM 8 x 1.25 - 12	2	
17	44.815.039	Washer L 8 U	2	
19	44.881.949	Screw SC M 8 x 1.25 - 20	2	
20	44.801.353	Nyloc nut HM 8.xl, 25	2	
23	44.036.315	Hay guide rod	1	
24	44.881.940	Screw SC M 10 X 1.25 - 25	1	
26	44.801.354	Nyloc nut M 10 x 1.25	1	
30	44.036.444	Swath board	1	
31	44.320.393	Windrow guide stick	1	
32	44.036.188	Half clamp	2	
33	44.881.990	Screw SC M 8 x 1.25 - 50	1	
34	44.320.395	Hand nut	1	
36	44.305.892	Compression spring	1	
37	44.882.145	Screw SC M 12 x 1.25 - 75	1	
38	44.815.041	Washer L 12 U	1	
39	44.801.355	Nyloc nut M 12 x 1.25	1	



Bar protective cover			PLATE 20	
Item No.	Part No.	Description	Quantity	Comments
	44.070.143	Bar protector - complete	1	
1	44.037.342	Lifting bracket	1	
2	44.037.333	Support upright	2	
3	44.037.332	Protector frame	1	
4	44.803.191	Screw HM 12 x 1.25 - 40	4	
5	44.801.355	Nyloc nut M 12 x 1.25	4	
6	44.037.334	Spacer	2	
7	44.803.271	Screw HM 16 x 1.50 - 40	2	
8	44.815.008	Flat washer Z 16 U	2	
9	44.801.357	Nyloc nut M 16 x 1.50	2	
11	44.037.416	Threaded connecting rod (with ref. 12)	1	
12	44.317.622	Self-lubricating bush 20 x 24 x 32	1	
14	44.037.417	Adjustable yoke (with ref. 15)	1	
15	44.317.622	Self-lubricating bush 20 x 24 x 32	1	
17	44.037.339	Pivot pin	1	
18	44.820.568	Spring pin E 5 x 40	2	
19	44.801.068	Nut HM 16 x 1.50 lock	1	
20	44.882.199	Lock washer 20	1	
22	44.037.339	Pivot pin	1	
23	44,815,010	Flat washer Z 20 U	1	
24	44.820.568	Spring pin E 5 x 40	2	
26	44.037.346	Protective canvas	1	
27	44.037.345	Attaching strap	10	

PART NUMBER DIRECTORY											
Part number	Plate	Item	Part number	Plate.	Item	Part number	Plate	Item	Part number	Plate	Item
14163370	8	4				44.036.393	3	1	44.036.842	16	21
14163370	8	40	44.036.312	14	29	44.036.394	3	3	44.036.847	16	24
14170970	8	16	44.036.313	14	23	44.036.397	3	5	44.036.848	16	25
14171170	8	13	44.036.314	12	6	44.036.398	3	7	44.036.850	18	4
			44.036.315	18	23	44.036.398	4	12	44.036.850	19	4
44.002.998	10	12	44.036.315	19	23	44.036.399	3	8	44.036.857	13	23
			44.036.318	12	8	44.036.399	3	27			
44.010.832	10	46							44.036.863	19	2
44.010.832	11	45	44.036.321	14	22	44.036.400	3	13	44.036.865	2	25
			44.036.322	14	16	44.036.400	5	3	44.036.866	2	26
44.036.188	18	32	44.036.323	14	28	44.036.402	3	14	44.036.869	6	1 A
44.036.188	19	32	44.036.324	18	5	44.036.403	3	19	44.036.870	11	33
			44.036.324	19	5	44.036.405	3	18	44.036.871	5	1
44.036.236	1	1	44.036.329	18	2	44.036.406	3	21	44.036.872	5	2
44.036.237	1	2	44.036.330	18	9	44.036.409	3	22	44.036.878	12	29
44.036.238	1	5	44.036.330	19	9	44.036.410	3	23	44.036.878	13	29
44.036.238	2	2	44.036.331	18	1	44.036.412	3	24	44.036.879	17	11
			44.036.331	19	1				44.036.882	17	-
44.036.250	6	1	44.036.333	12	17	44.036.415	3	26	44.036.883	17	17
44.036.253	6	2	44.036.333	13	17	44.036.416	4	5	44.036.884	17	15
44.036.254	6	3				44.036.417	4	6	44.036.885	17	16
44.036.255	6	4	44.036.341	17	20	44.036.418	4	7	44.036.941	12	38
44.036.256	6	8	44.036.344	12	1	44.036.419	4	8	44.036.957	13	6
44.036.257	1	10	44.036.345	12	4	44.036.420	4	9	44.036.963	2	1
44.036.257	2	6	44.036.345	13	4	44.036.420	5	4			
44.036.258	1	11	44.036.346	12	5	44.036.422	4	3	44.036.979	11	34
44.036.258	2	7	44.036.346	13	5	44.036.423	4	10	44.036.980	11	35
			44.036.347	15	18	44.036.424	3	28	44.037.022	13	3
44.036.263	1	16	44.036.347	16	18	44.036.426	4	16	44.037.027	16	8
44.036.263	2	12	44.036.348	15	13	44.036.426	5	6	44.037.028	16	9
44.036.264	1	17	44.036.348	16	13	44.036.427	4	20	44.037.029	13	28
44.036.264	2	13	44.036.349	15	19	44.036.427	5	10	44.037.032	18	15
44.036.265	1	18	44.036.349	16	19				44.037.032	19	15
44.036.265	2	14	44.036.350	15	9	44.036.433	10	25	44.037.136	13	1
44.036.266	o	10				44.036.433	11	25	44.037.141	12	40
44.036.269	1	21	44.036.355	4	23				44.037.142	12	39
44.036.269	2	17	44.036.355	5	13	44.036.434	10	29	44.037.149	4	17
44.036.276	1	25	44.036.356	4	24	44.036.434	11	29	44.037.149	5	7
			44.036.356	5	14	44.036.435	10	30	44.037.155	14	22
44.036.278	6	5	44.036.357	4	-	44.036.435	11	30	44.037.158	17	3
44.036.279	10	1	44.036.357	5	-	44.036.436	10	33	44.037.159	13	9
44.036.279	11	1	44.036.358	14	17	44.036.437	10	34	44.037.160	13	8
44.036.280	10	2	44.036.359	14	20	44.036.438	10	35			
44.036.280	11	2	44.036.360	14	32	44.036.439	10	36	44.037.226	15	1
44.036.281	10	9	44.036.361	14	32	44.036.440	10	40	44.037.226	16	1
44.036.281	11	9							44.037.227	15	1
44.036.282	10	14	44.036.362	14.	15	44.036.444	18	30	44.037.227	16	1
44.036.282	11	14	44.036.363	14	1	44.036.444	19	30	44.037.228	15	1
			44.036.364	14	3	44.036.446	10	47	44.037.228	16	1
44.036.283	10	18	44.036.365	14	4	44.036.446	11	46	44.037.229	15	1
44.036.283	11	18	44.036.366	14	7	44.036.452	4	1	44.037.229	16	1
44.036.284	10	19	44.036.367	14	7	44.036.458	13	11	44.037.230	15	14
44.036.284	11	19	44.036.368	14	10				44.037.230	16	14
44.036.286	10	22	44.036.369	14	13	44.036.509	1	30	44.037.312	2	8
44.036.286	11	22							44.037.314	15	20
44.036.287	10	4	44.036.371	15	3	44.036.689	12	23	44.037.314	16	20
44.036.287	11	4	44.036.371	16	3				44.037.332	20	3
			44.036.372	15	4	44.036.733	14	19	44.037.333	20	2
44.036.289	12	3	44.036.372	16	4	44.036.734	17	6	44.037.334	20	6
44.036.290	15	8	44.036.373	12	32	44.036.735	17	2	44.037.339	20	17
44.036.291	17	1	44.036.373	13	32	44.036.736	15	6	44.037.339	20	22
44.036.296	15	14	44.036.374	12	28	44.036.736	16	6	44.037.342	20	1
44.036.297	15	21				44.036.737	15	6	44.037.345	20	27
44.036.298	12	22	44.036.377	12	29	44.036.737	16	6	44.037.346	20	26
44.036.298	13	22	44.036.378	15	26	44.036.763	14	5	44.037.412	17	18
44.036.299	15	15	44.036.379	12	9				44.037.416	20	11
44.036.299	17	8	44.036.380	3	6	44.036.820	10	10			
			44.036.380	12	10	44.036.820	11	10	44.055.472	8	10
44.036.300	15	15	44.036.381	12	11	44.036.824	15	15	44.070.117	9	-
44.036.300	17	8	44.036.385	12	35	44.036.825	15	15	44.070.143	20	-
44.036.301	15	15	44.036.385	13	35	44.036.826	15	15	44.305.892	18	36
44.036.301	17	9	44.036.386	15	25				44.305.892	19	36
44.036.303	17	10				44.036.836	2	22	44.308.363	1	22

PART NUMBER DIRECTORY											
Part number	Plate	Item	Part number	Plate	Item	Part number	Plate.	Item	Part number	Plate	Item
44.308.363	2	20	44.378.791	9	19	44.811.793	12	30	44.881.712	10	11
44.308.917	10	5							44.881.712	11	11
44.308.917	11	5	44.378.806	7	32	44.815.004	12	25			
			44.378.806	9	18	44.815.004	13	25	44.881.940	18	24
44.312.048	4	27	44.378.807	7	35	44.815.004	18	11	44.881.940	19	24
44.312.048	5	17	44.378.807	9	21	44.815.004	19	11	44.881.949	18	19
44.312.164	1	27	44.378.808	7	36	44.815.006	10	15	44.881.949	19	19
44.315.235	4	26	44.378.808	9	22	44.815.006	11	15			
44.315.235	5	16	44.378.814	7	41	44.815.008	4	18	44.881.990	18	33
44.315.280	4	25				44.815.008	5	8	44.881.990	19	33
44.315.280	5	15	44.378.814	9	27	44.815.008	20	8			
						44.815.010	4	2	44.882.145	18	37
44.317.095	3	11				44.815.010	20	23	44.882.145	19	37
44.317.622	20	12	44.801.012	18	26	44.815.039	18	17	44.882.199	20	20
44.320.393	18	31	44.801.013	1	14	44.815.039	19	17	44.882.224	14	24
44.320.393	19	31	44.801.013	2	10	44.815.041	18	38	44.882.236	3	10
44.320.395	18	34	44.801.015	3	15	44.815.041	19	38	44.882.236	4	14
									44.882.238	4	19
44.320.395	19	34	44.801.066	1	15	44.815.303	10	27	44.882.238	5	9
44.378.041	7	1	44.801.066	2	11	44.815.303	11	27			
44.378.041	9	1	44.801.068	3	16	44.815.303	16	26	44.882.293	14	21
44.378.042	7	2	44.801.068	4	11	44.815.305	6	7	44.882.294	14	25
44.378.042	9	2	44.801.068	5	5	44.815.305	11	38	44.882.295	17	5
44.378.043	7	3	44.801.068	20	19	44.815.305	14	12	44.882.296	15	10
44.378.043	9	3	44.801.353	10	38	44.815.305	14	35	44.882.297	15	5
44.378.044	7	4	44.801.353	11	39	44.815.306	18	25	44.882.297	16	5
44.378.044	9	4	44.801.353	12	26	44.815.307	12	19	44.882.299	3	29
44.378.045	7	6	44.801.353	13	26	44.815.307	13	19			
44.378.045	9	6	44.801.353	18	12				44.882.306	12	24
44.378.048	7	7	44.801.353	18	20	44.820.546	3	9	44.882.306	13	24
44.378.048	9	7	44.801.353	19	12	44.820.546	3	20	44.882.307	18	10
			44.801.353	19	20	44.820.546	3	25	44.882.307	19	10
44.378.058	7	34	44.801.354	17	19	44.820.546	4	13	44.882.312	12	33
44.378.058	9	20	44.801.354	19	26	44.820.562	12	41	44.882.312	13	33
44.378.133	7	25				44.820.566	4	4	44.882.312	18	3
44.378.134	7	26	44.801.355	1	7	44.820.568	20	19	44.882.312	19	7
44.378.135	7	27	44.801.355	2	4	44.820.568	20	24	44.882.313	18	6
44.378.136	7	28	44.801.355	10	16	44.820.570	13	12	44.882.313	19	6
44.378.137	7	29	44.801.355	10	44	44.820.768	12	12	44.882.334	16	10
			44.801.355	11	16	44.820.769	1	19	44.890.139	12	36
44.378.156	7	10	44.801.355	11	41	44.820.769	2	15	44.890.139	13	36
44.378.156	9	10	44.801.355	12	15	44.820.772	6	9	44.890.139	15	24
44.378.169	7	14	44.801.355	13	15	44.836.031	7	17	44.890.160	3	17
44.378.169	9	14	44.801.355	18	39				44.890.234	13	30
			44.801.355	19	39						
44.378.229	7	8	44.801.355	20	5	44.837.312	1	12			
44.378.229	9	8	44.801.356	3	4	44.850.005	15	7	62.710.220	7	40
44.378.268	7	11				44.850.005	16	7	62.710.220	9	26
44.378.268	9	11	44.801.357	17	21	44.850.020	14	6	62.710.221	7	-
			44.801.357	20	9	44.850.025	10	3	62.710.222	7	12
44.378.741	8	17	44.802.603	6	6	44.850.025	11	3	62.710.223	7	13
44.378.742	8	18	44.802.689	1	6	44.850.025	14	2	62.710.224	7	16
44.378.743	8	21	44.802.689	2	3				62.710.225	7	18
44.378.744	8	20				44.850.541	17	7	62.710.226	7	19
44.378.748	8	24	44.803.071	16	27	44.850.555	10	7	62.710.227	7	20
44.378.749	8	22	44.803.073	10	26				62.710.228	7	22
44.378.750	8	23				44.880.066	1	4	62.710.229	7	24
						44.880.323	1	13	62.710.230	7	31
44.378.752	8	25	44.803.101	11	36	44.880.323	2	9	62.710.230	9	17
44.378.754	8	3	44.803.101	18	16				62.710.231	7	38
44.378.755	8	2	44.803.101	19	16	44.880.429	17	12	62.710.232	7	39
44.378.756	8	26	44.803.105	10	37	44.880.431	17	13			
44.378.757	8	27	44.803.107	10	37	44.880.549	14	18	62.710.312	8	32
44.378.758	8	28	44.803.107	11	37				62.710.313	8	19
44.378.759	8	29	44.803.107	14	11	44.881.150	7	23	62.710.347	9	12
44.378.760	8	30	44.803.107	14	34	44.881.193	17	4	62.710.348	9	13
44.378.761	8	31	44.803.189	12	18				62.710.349	9	24
			44.803.189	13	18	44.881.301	1	26	62.710.350	9	25
44.378.765	8	5	44.803.191	20	4	44.881.357	6	12			
44.378.766	8	6	44.803.192	10	42				62.720.408	8	38
44.378.767	8	7	44.803.192	11	40	44.881.516	10	6	62.720.993	8	39
44.378.768	8	8	44.803.192	12	14	44.881.516	11	6			
44.378.769	8	6	44.803.192	13	14				62.721.028	8	36
44.378.774	8	15	44.803.193	10	43	44.881.643	8	9	62.721.029	8	33
44.378.775	8	14				44.881.643	14	37	62.721.030	8	34
44.378.776	8	1	44.803.241	3	2	44.881.657	1	3	62.721.031	8	35
			44.803.271	20	7				62.721.032	8	37
44.378.787	7	21	44.803.559	18	41						
44.378.791	7	33	44.803.559	19	3						