

VOTEX HEREFORD LTD.

Newtown Road, Hereford Telephone (01432) 274361 Fax (01432) 352743

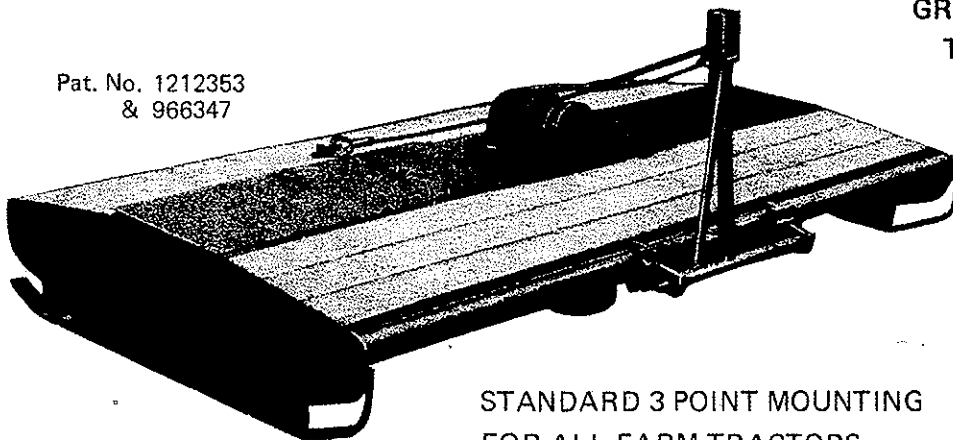
Instructions & Parts List

VOTEX

P.T.
MODELS

ROTARY CUTTER

Pat. No. 1212353
& 966347



for
GRASS
THISTLES
NETTLES
POTATO
BRACKEN
RUSHES
THORN
BRIAR
HAULM

6 ft. — 9 ft. — 12 ft. — 15 ft.

STANDARD 3 POINT MOUNTING
FOR ALL FARM TRACTORS

VOTEX PT 2, 3, 4 and 5 INSTRUCTIONS

The Votex PT Model machines are ideally suited for cutting grass and scrub and to chop and spread straw and stubble. Also for mulching potato haulm. Votex machines are particularly suitable for the upkeep of orchards, parks, aerodromes, recreation fields, sportsfields, pasture topping; also helps to spread dung and improve new growth. Hay and silage can be cut and spread for quick wilting but only in special circumstances.

1. ATTACHMENT TO THE HYDRAULIC LIFT OF THE TRACTOR

The coupling method on the 3-point linkage is drawn on page 4 (fig. 1). The lowerlinks (a) of the tractor have to be connected to the parts no. 62188, provided with lynch pins. Thereupon, the toplink (b) is connected to the top linkage of no. 62177 with pins no. 60243 and no. 33210. Adjust the toplink (b), until the cable no. 61191 is slack and the machine is flat on the ground. As you will see, part no. 62188 can be clamped on the tube in three positions (see fig. 2 page 4). It is recommended to always choose the lowest possible position (c) in order to prevent spurring of the skids as much as possible. In cases where the lower link cannot be used one can adjust to 45 or 90 degrees (b. or a.)

URGENT NOTE: ONE MUST TAKE CARE THAT, WHEN LIFTING THE MACHINE THAT THE P.T.O. SHAFT DOES NOT TOUCH THE TOP LINKAGE PART NO. 62177, OTHERWISE IT WILL BE DAMAGED. ALWAYS ATTACH STABILIZER BAR (m. Fig. 1 Page 4) AND SET YOUR STOP ON HYDRAULICS LEVER TO AVOID LIFTING MACHINE TOO HIGH AND BENDING P.T.O. SHAFT.

2. MOUNTING (See illustration page 5)

If you add links to lengthen cable and shorten the top link it is possible to adjust until the back of Votex rears up and raises the P.T.O. drive shaft at the machine end keeping it further away from the bottom bar of 3 point link This is only usually necessary on small tractors or where the tractor drive is very low down near the ground, sometimes on "Vineyard" model. In extreme cases the upright of 'A' frame may have to be altered to allow full lift. Warranties on P.T.O. Shafts will not be considered where damage has been caused by fouling the Votex machine. (Wire cable MUST be slack enough to allow the machine to follow undulating ground when cutting).

3. ADJUSTMENT OF THE MACHINE

The adjustment is very simple. You can run the machine awhile and check if the cutting height is correct. When you want to cut shorter or longer, you have only to adjust both the sideskids in height.

Adjustment can be made to offset position by loosening the ropes and shifting the connecting parts no. 62188 in the required position (see fig. 1) (within the limits of your P.T.O. Drive, maximum angle 33 degrees).

4 TIGHTENING OF THE V-BELTS (See fig. 4 page 4)

This is done by taking away one or more fillers (shims) (c) from the V-belt pulley. The V-belts can only be tightened on outer hubs. The central V-belt pulley (under the gearbox) has no adjustment. For example, take Pt. 3. On the left and right side of the gearbox the belts can be tightened by loosening the four nuts (d) on the V-belt pulley, remove the top flange (e), take away one or more adjusting discs (c) replace flange (e) **put spare discs back on top of flange** (f) replace nuts (d) tighten. But N.B. care must be taken when tightening the nuts, to avoid pinching belt fig. 4. Turn pulley one quarter turn each time you tighten a nut until all are evenly tight (fig. 1g).

To fit a new belt remove the four bolts 35412. The gearbox has then enough freedom for you to lift and thread new belt over the whole unit. Check first if the belt you are renewing is the upper or lower one. If it is the lower one you must first remove the upper belt to give you access to the lower gearbox pulley. Always replace spacers as the new belt needs at least five to avoid over stretching thus destroying future adjustments after wear.

5. ADJUSTMENT OF THE TAPERED BEARINGS (See fig. 3 and 4, page 4).

The adjusting ring (h) is screwed into the bearing housing (k) and secured by means of a counter sunk screw for allen key or screwdriver to remove. Once you have slackened this off you will be able to unscrew (left-hand thread) the whole ring and reveal the tapered bearings inside.

When fitting new bearings be very careful not to screw these rings in too tightly and overload the bearings. Never fit new roller race without renewing bearing ring as the **taper angle may vary.**

6. BLADES

It is most important to note that the blades are held on with large **left hand** thread nuts, which after use are very tight and it is essential to use the spanner supplied with the machine to knock them off with a sharp heavy blow. The blades cannot be sharpened with a file, only by using a rotary stone in a hand grinder.

After fitting new blades, run machine and check that they do not touch due to possible slight variation in length, grind off ends if necessary. Gap must be 8mm precisely. Maximum wing area is essential for efficient cutting. If wing tip is worn badly there is serious loss to the upward draught created by the blades.

7. OIL AND GREASE POINTS BEFORE USE - (See page 3)

1. Check oil in gearbox, on receipt of machine.
2. Grease outer hubs carrying blades.
3. Grease Universal joints on P.T.O.
4. Telescopic tubes must be well greased to allow machine to rise and fall on uneven ground.

Gearbox: Oilbath - required contents - three quarters litre transmission oil Hypoid 90 (oil level up to lower plug at the rear of the housing).

Grease: Good quality tractor grade.

8. WORKING MAINTENANCE

Check oil level twice a week. Renew once a season which can be done in two ways:-

- a. By taking away the gearbox from the machine (remove blade and lift gearbox from its support).
- b. Place machine in the vertical position, loosen the lower plug to the rear of the housing, drain off oil, place machine flat again and refill with three quarters litre fresh oil.

Daily greasing points for greasegun. (Good quality tractor grade).

- a. Rotor shafts
- b. Coupling shaft, see lubricating page.

N.B. It is important to tighten all nuts after 12 hours use particularly the 'U' bolts also the bolts securing gear box and hub casting to frame.

9. CONTINUING SAFETY AND MANUFACTURER'S LIABILITY

Whilst every effort has been made to ensure that Vortex Machines are safe, it is obvious that in normal operation they are likely to eject stones and other debris with considerable force. Dealers, owners and other persons concerned with the operation of such machines must therefore take all possible precautions to protect persons and property from this danger.

The Company will not accept any liability resulting from failure to comply with these instructions.

10.

If stored outside rear up on back edge and lean against a wall. Clean off all dead grass mud etc., sharpen and oil blades to preserve in good condition.

11.

To fit new shear pin :-

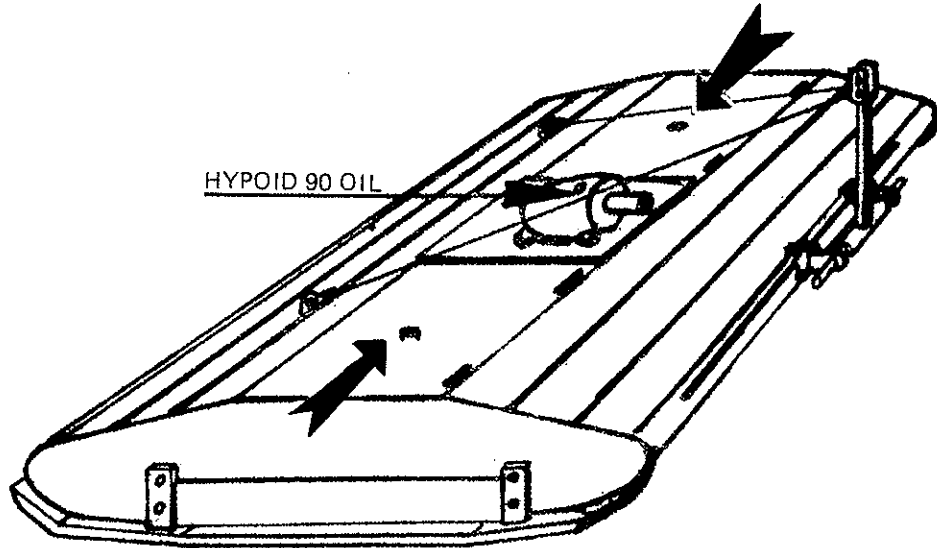
Turn to page 9 and note "Shearpin" 62904. This fits into boss 62903 held by allen screws 60384 to the main casting 61702. Take care and ONLY use a 6mm allen key to avoid damaging screw heads. If difficult to shift, lubricate open end of screw hole in flange with releasing agent and leave overnight to ease off rust. After fitting new stub-shearpin make sure the boss is secured very tight with replaced allen screws. (There is no warranty on this shearpin.) Tractors with excessive power will shear this off if blades are jammed stationary in heavy crop or obstruction, saving any damage to P.T.O. shaft or gear box. Always lift on top of crop to attain high revs before dropping into work.



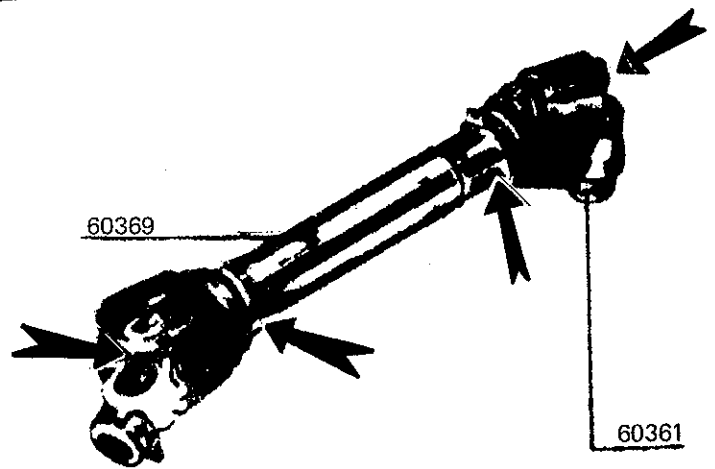
62197

P.T. 2, 3, 4 & 5

are all similar in construction



GREASING POINTS =



Illustrations
(See Instructions)

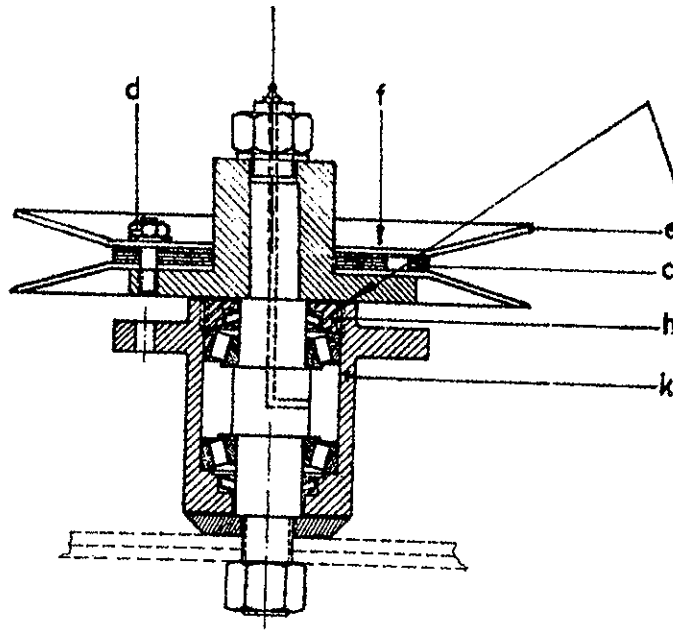


fig 4

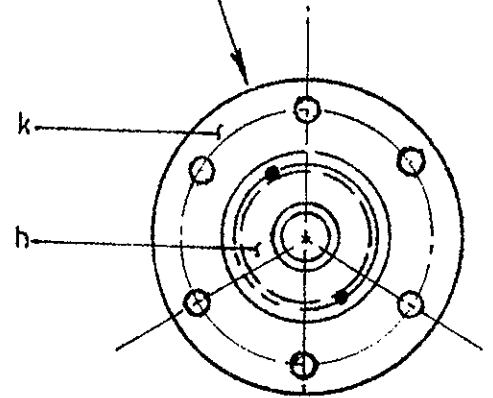


fig 3

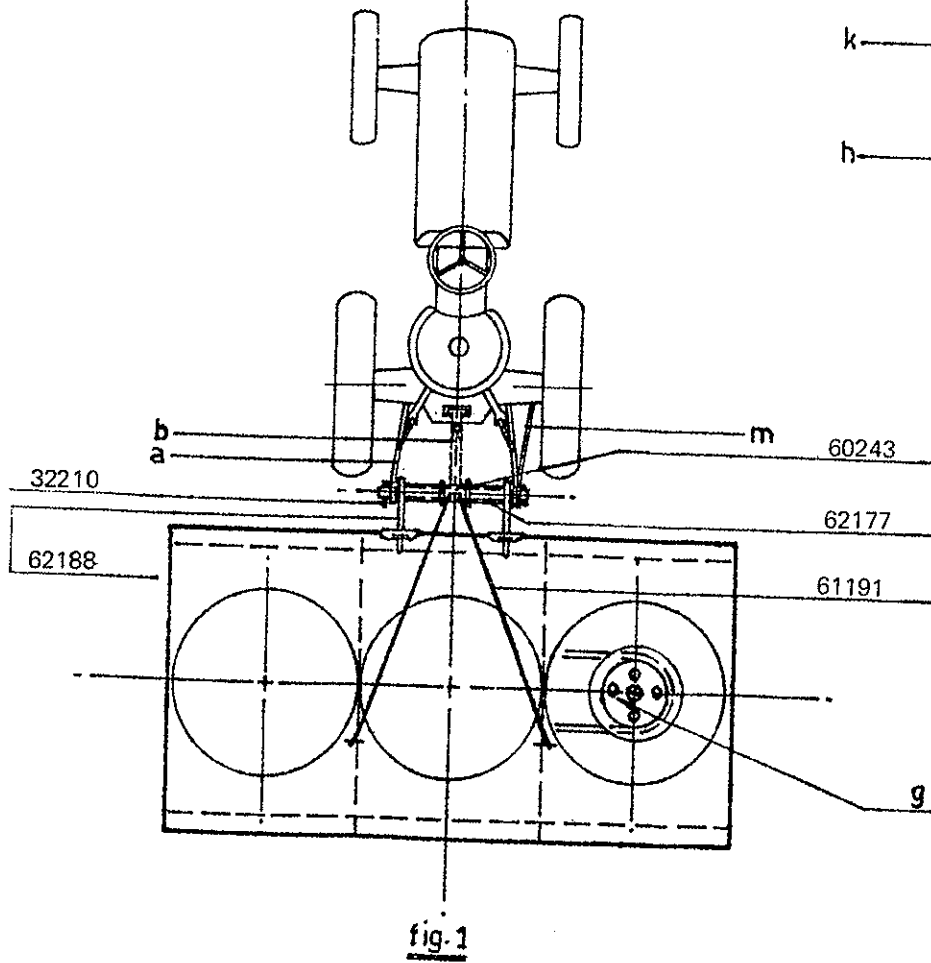


fig 1

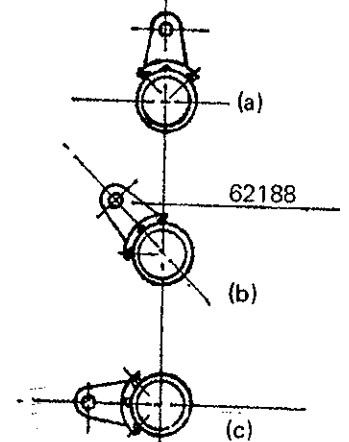
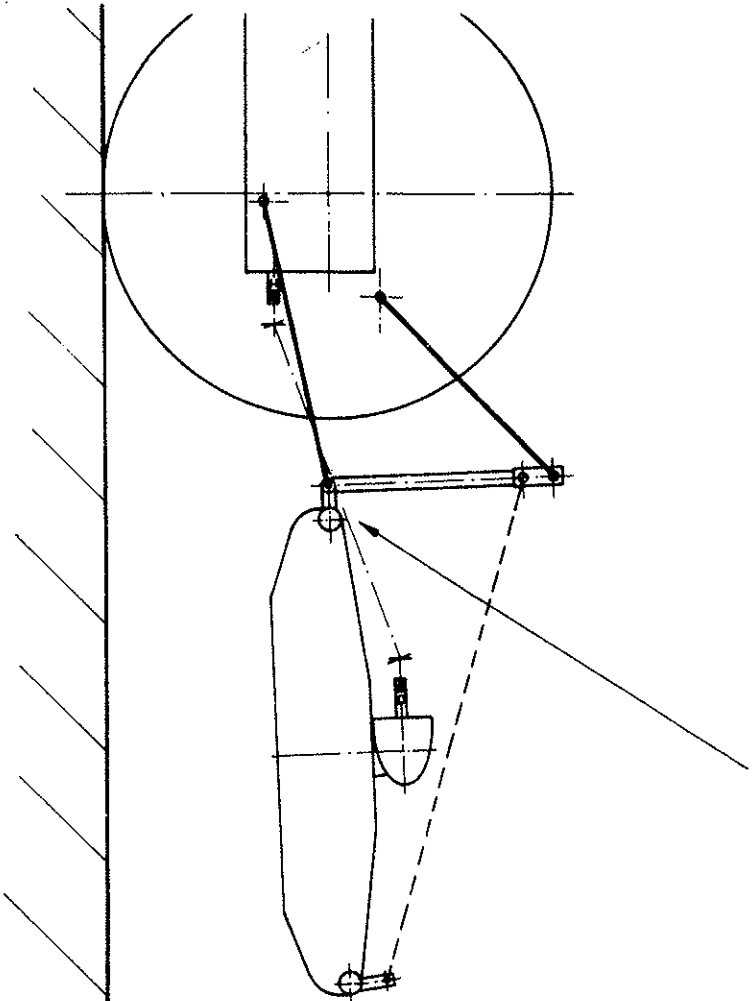


fig 2

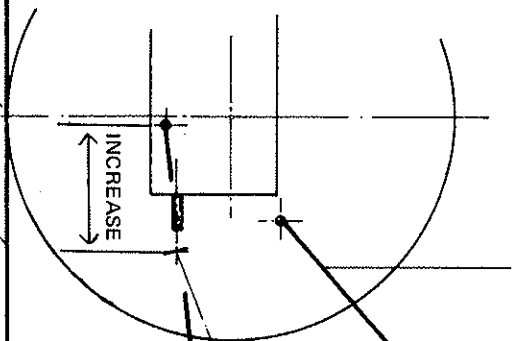
THREE-POINT MOUNTING OF P.T.O.-MOWERS

TO PREVENT THE RISK OF P.T.O.-DAMAGING AT THIS POINT

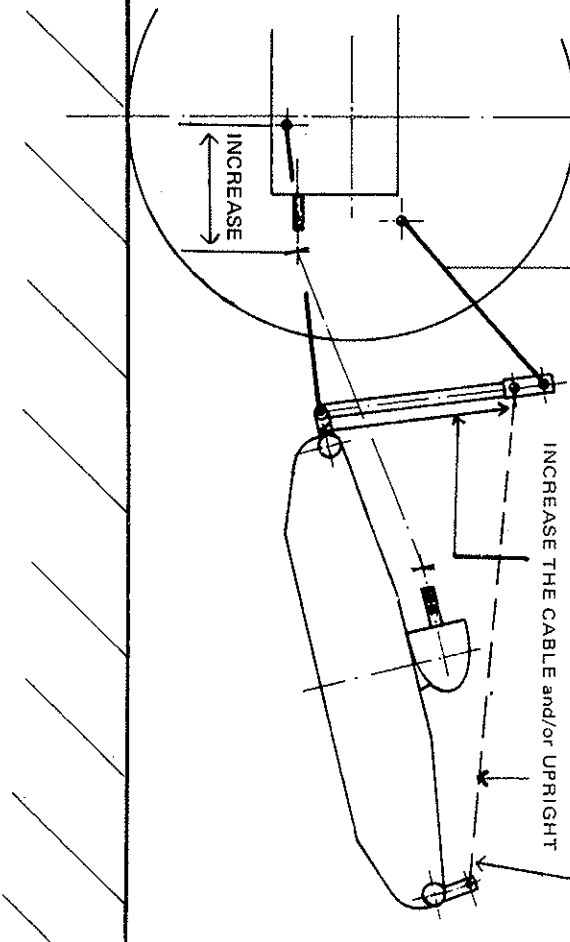


Alternative methods of adjustment

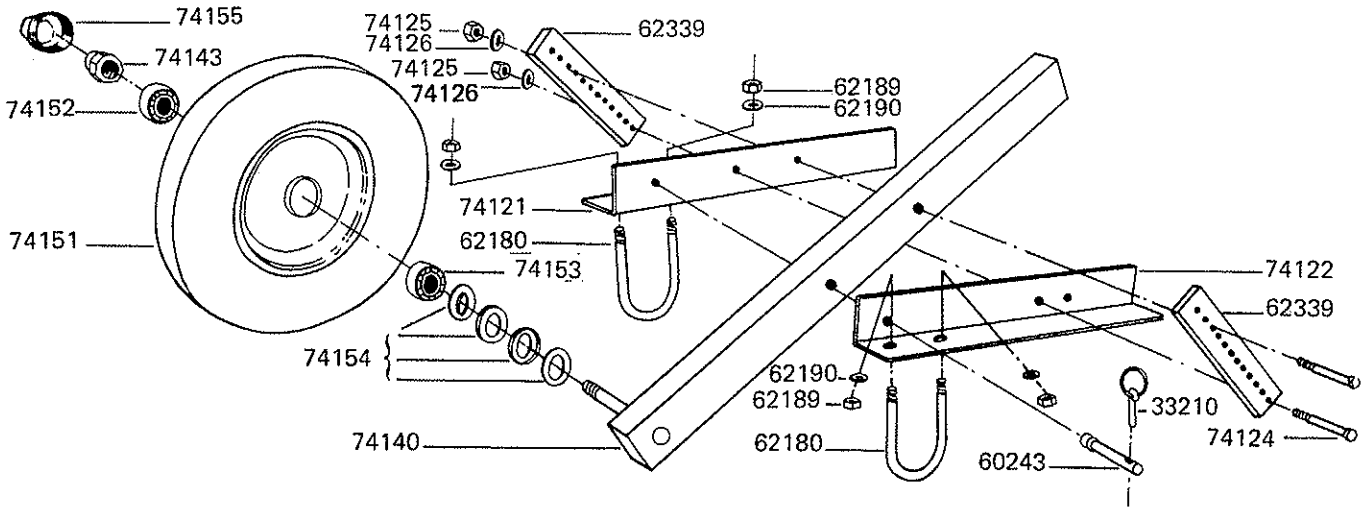
REDUCE THE LENGTH OF THE UPPER LINK (REPLACE WITH SHORT CHAIN IF NECESSARY)



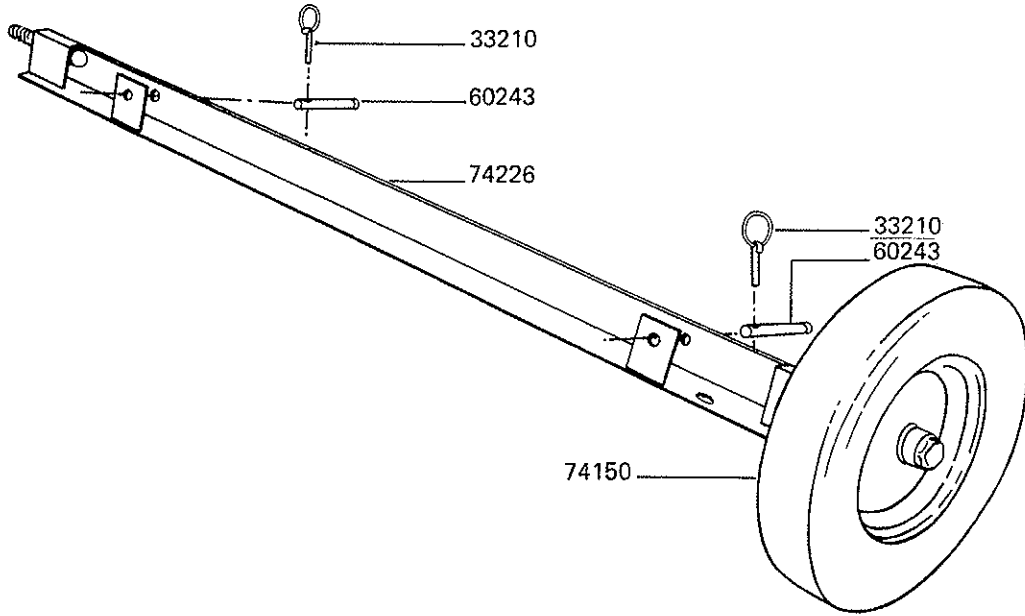
ADJUST WITH CHAIN LINKS HERE



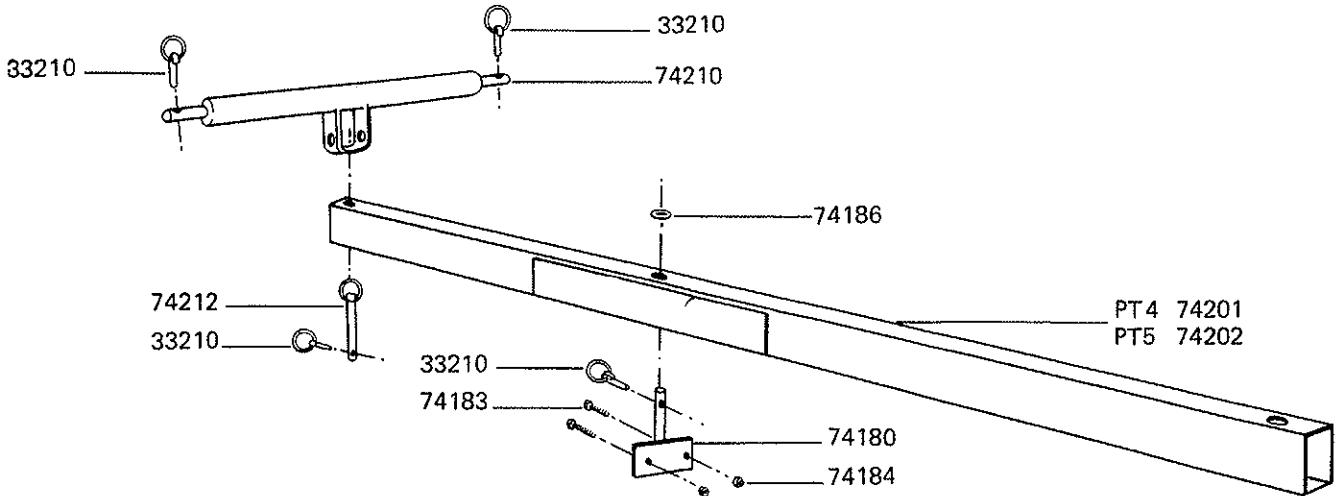
WORKING WHEEL ASSEMBLY 74210



TRANSPORTING ASSEMBLY PT 4 & 5 74170



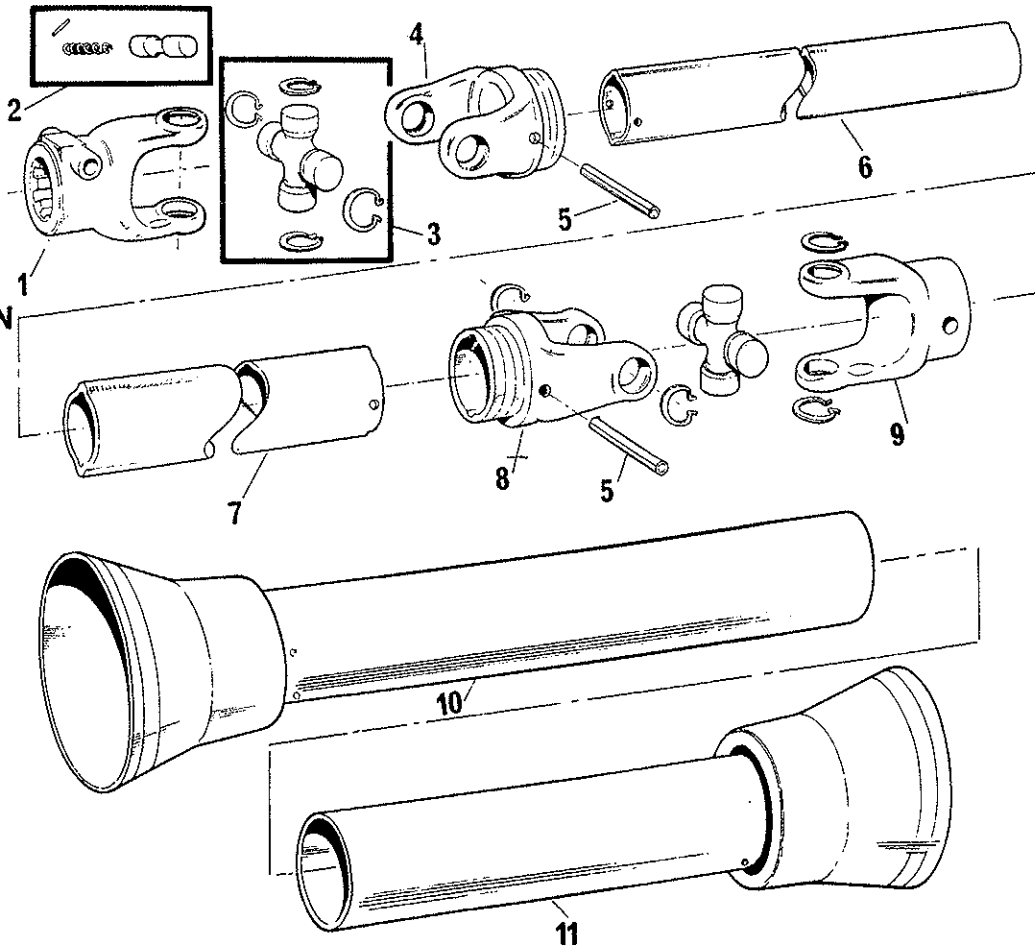
DRAWBAR ASSEMBLY PT 4 & 5



P.T.O. Shafts

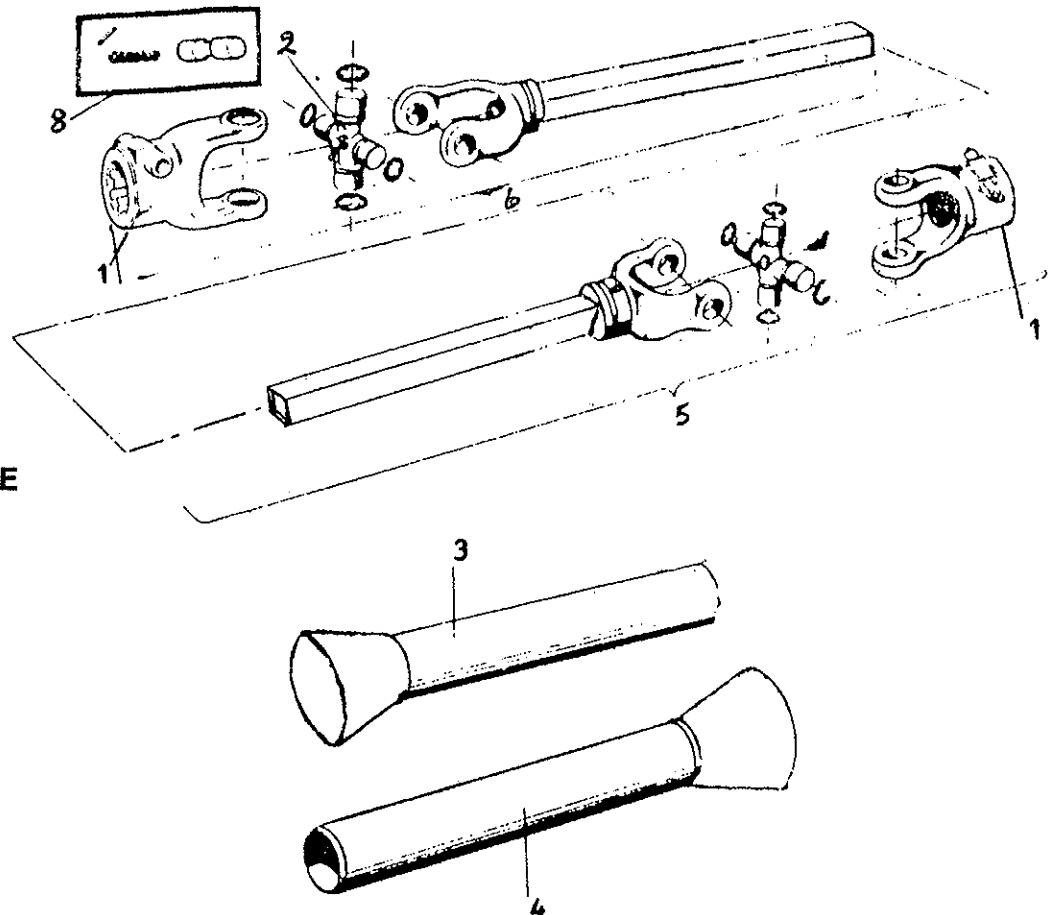
VOTEX LEMON TUBE SHAFT (90310)

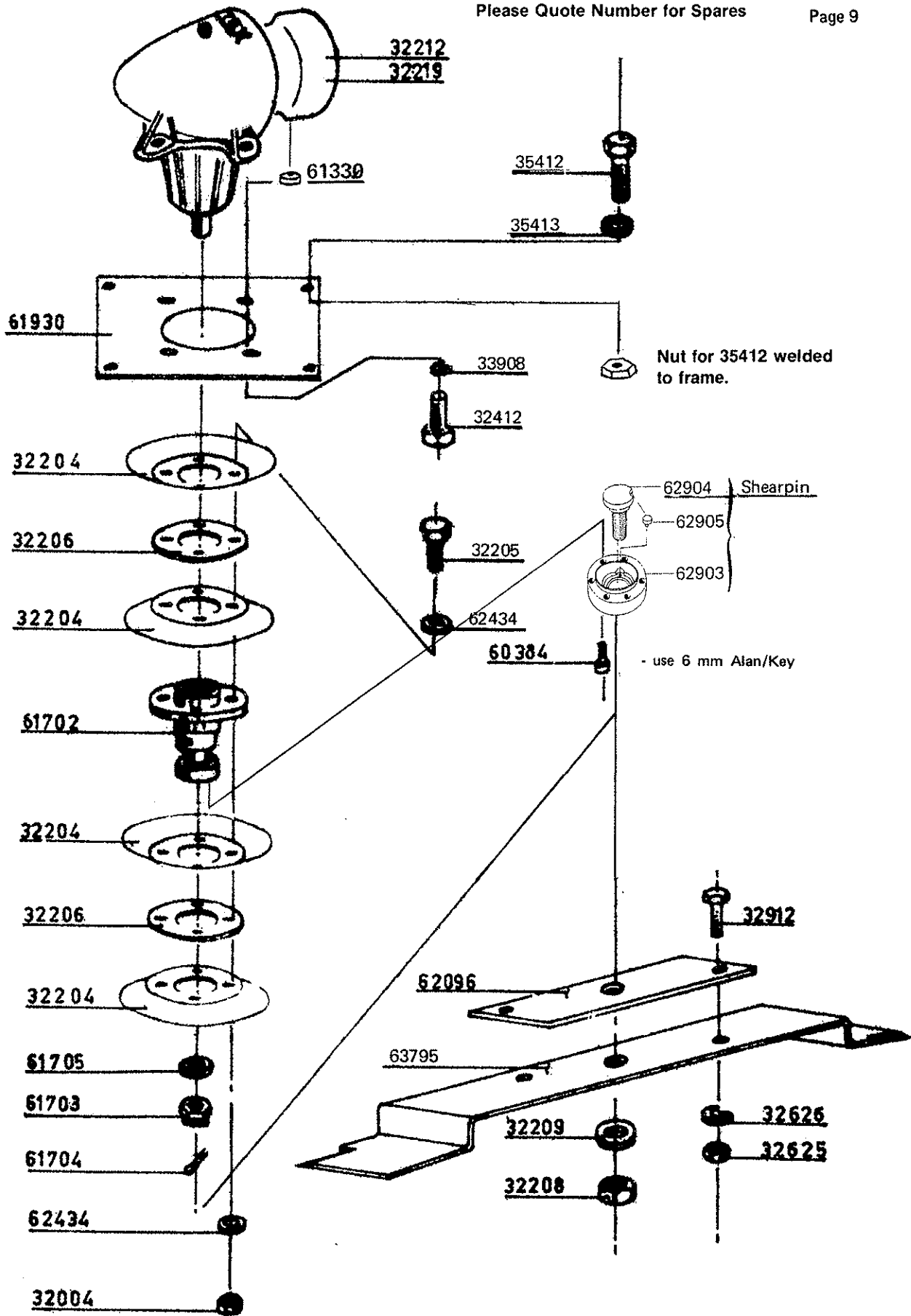
- 1. 90311
- 2. 90312
- 3. 90313
- 4. 90314
- 5. 90315
- 6. 903166
- 7. 90317
- 8. 90318
- 9. 90311
- 10. 90319
- 11. 90320



VOTEX SQUARE TUBE SHAFT (82360)

- 1. 82361
- 2. 82362
- 3. 82363
- 4. 82364
- 5. 82365
- 6. 82366
- 7. 82361
- 8. 82367

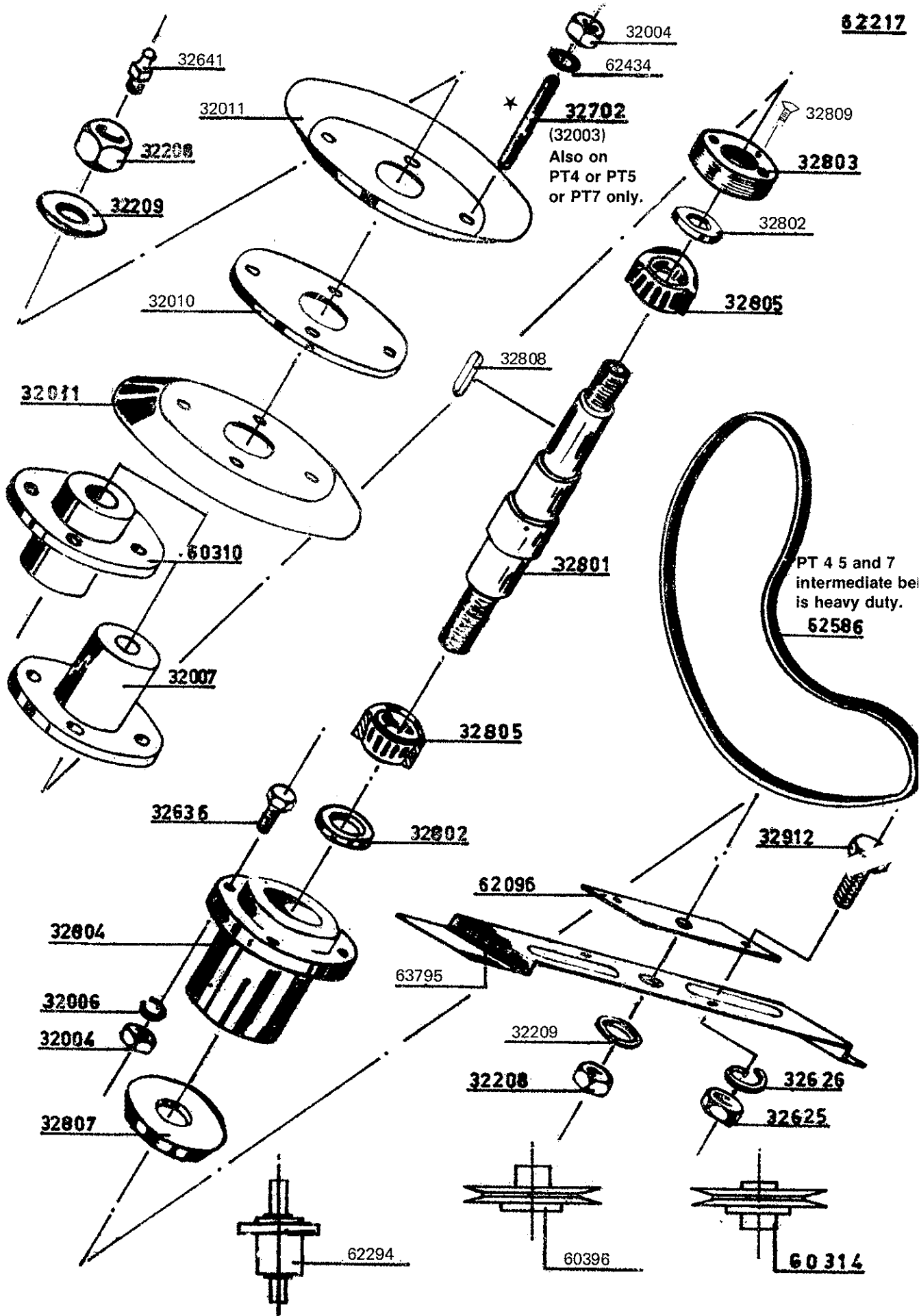




★ On the 4,5 and 7 bladed machines there is a double V drive on this assembly with extra long studs 32003.

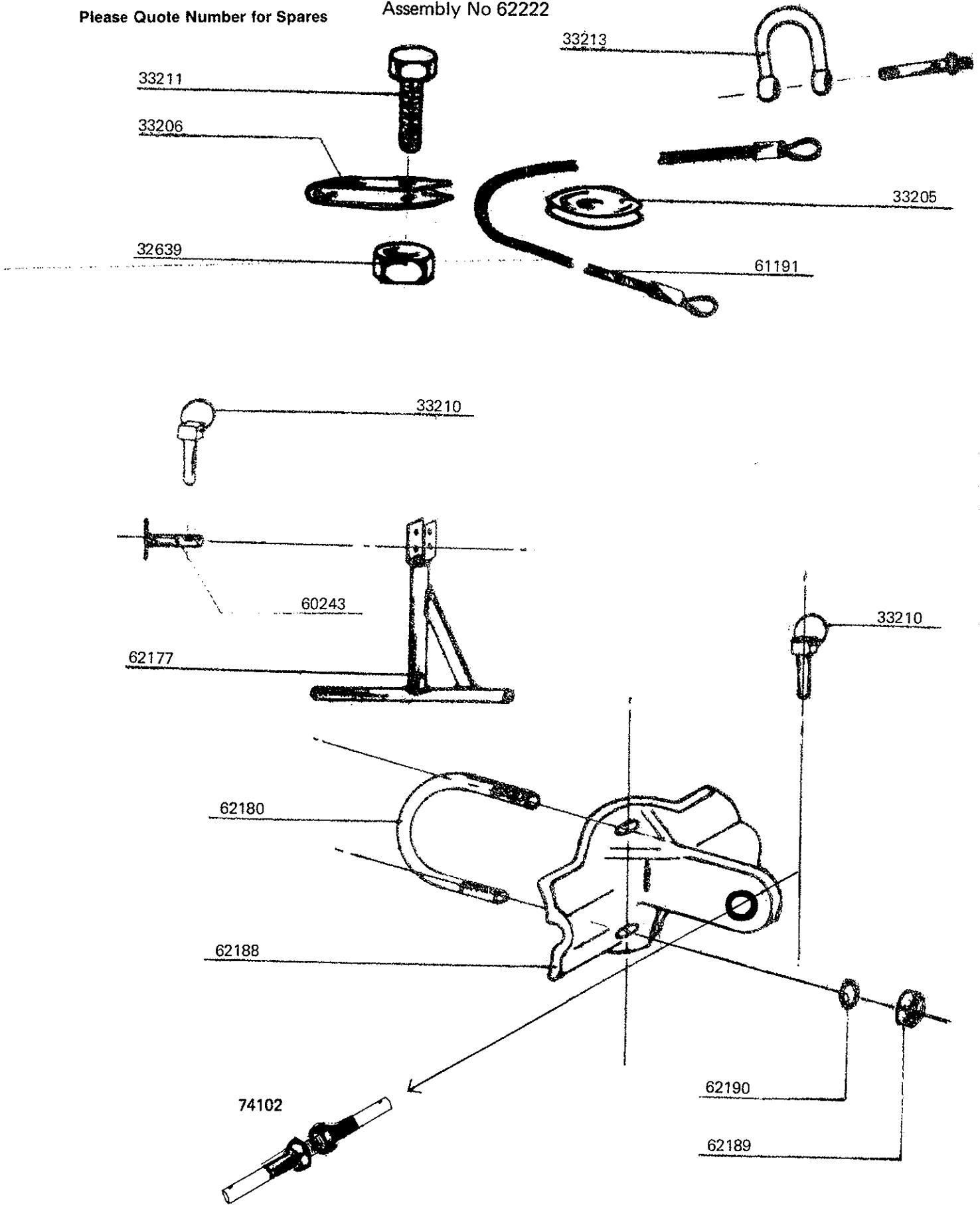
Please Quote Number for Spares

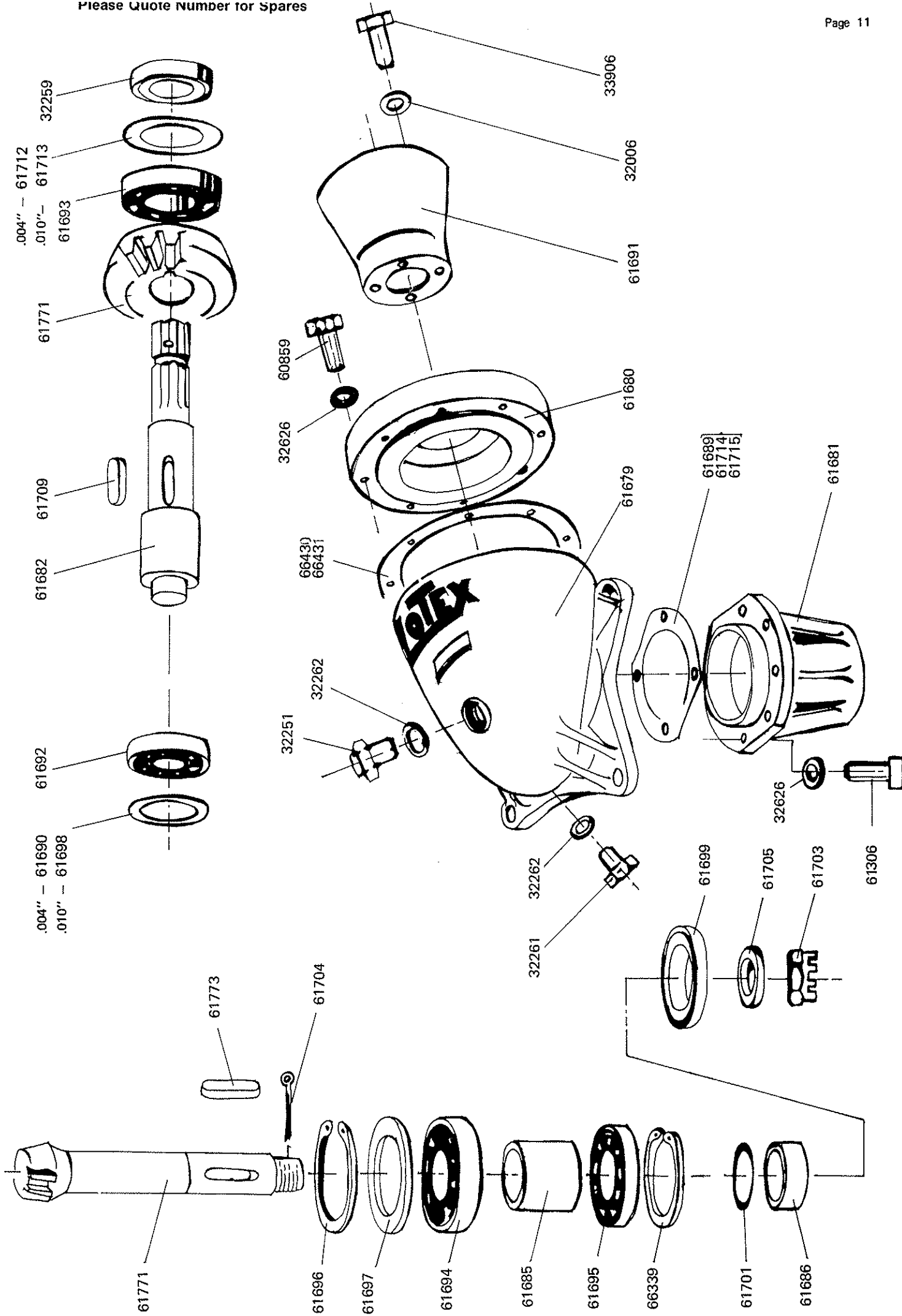
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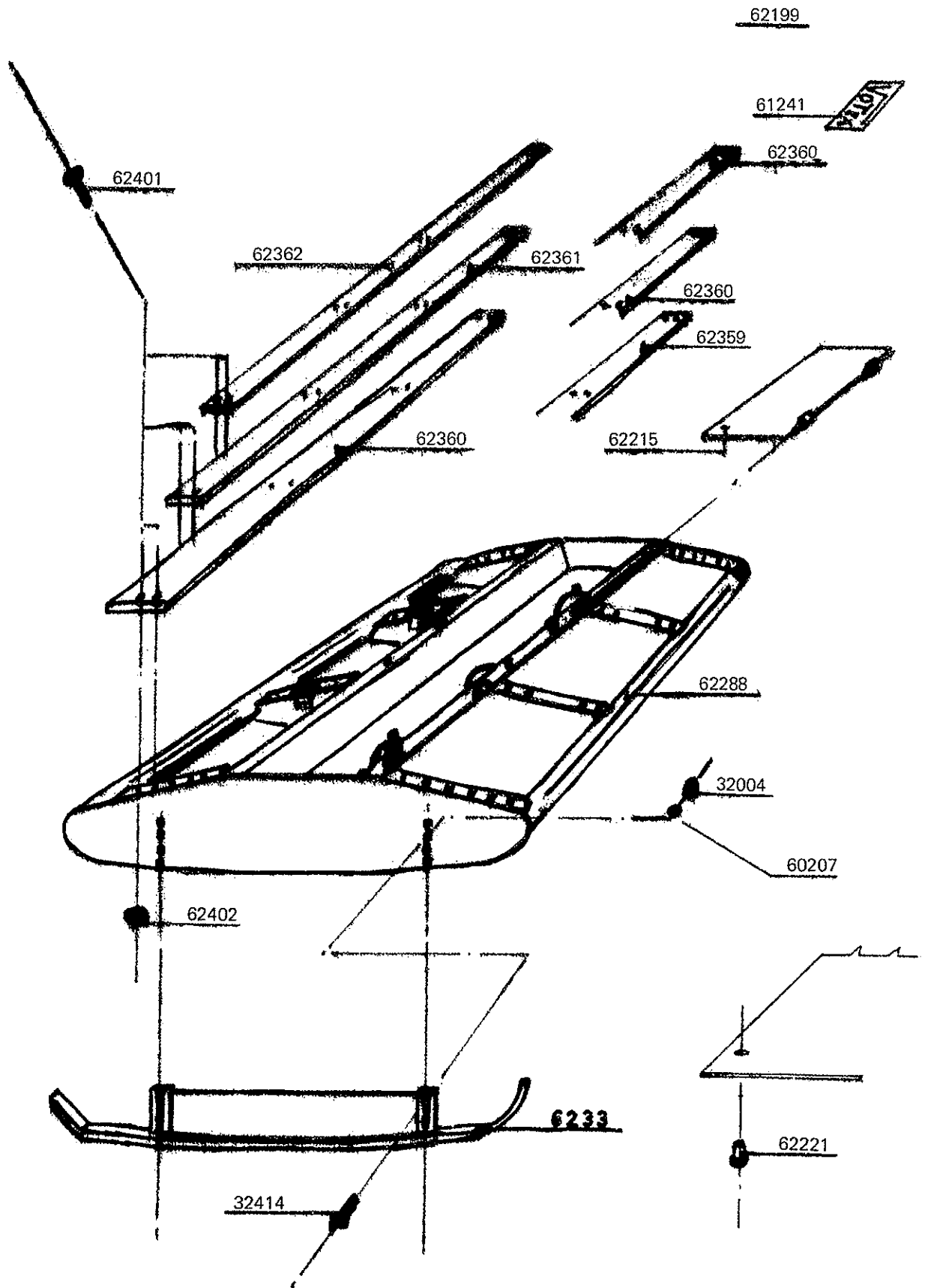


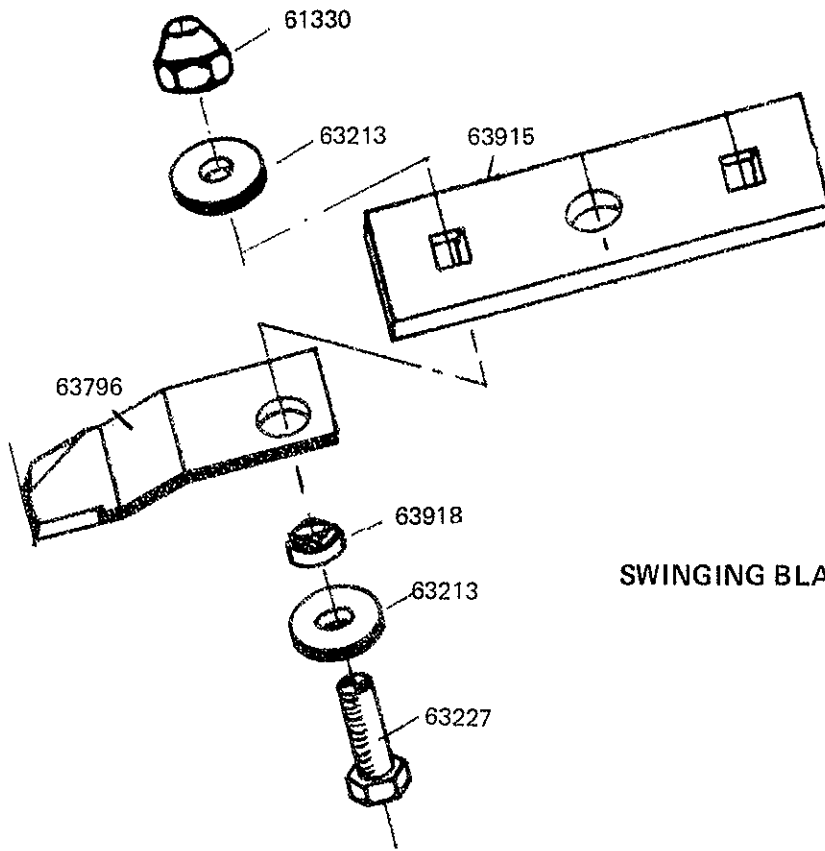
Please Quote Number for Spares

Assembly No 62222









SWINGING BLADES ASSEMBLY