

Operator's Instructions  
Instructions pour l'opérateur  
Bedienungsanleitung  
Instrucciones para el operario  
Instruções de operação  
Istruzioni per l'uso  
Bedieningsinstructies  
Οδηγίες για τον χειριστή  
Käyttöohje  
Betjeningsvejledning  
Bruksanvisning  
Skötselinstruktion

**Motor drills**  
**Marteaux perforateurs**  
**Motorbohrhämmer**  
**Motoperforadoras**  
**Martelo perfurador**  
**Perforatrici a motore**  
**Motorboorhamers**  
**Βενζινοκίνητες Σφύρες**  
**Moottoriporakoneet**  
**Motorborehamre**  
**Motorboremaskiner**  
**Motorbormaskiner**



**Pionjär®**

**120**

**130**

**140**

**150**

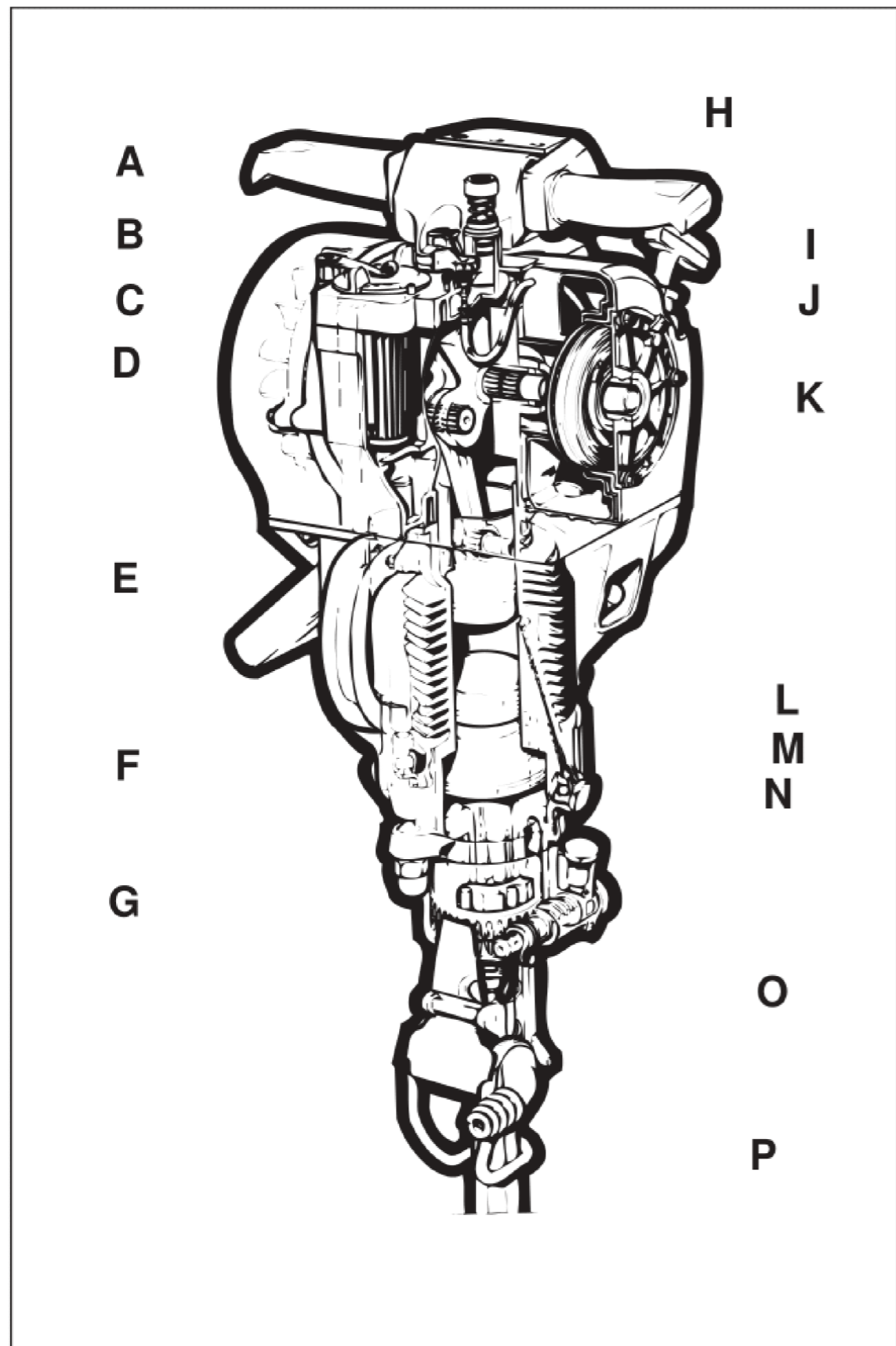


Fig. 1a

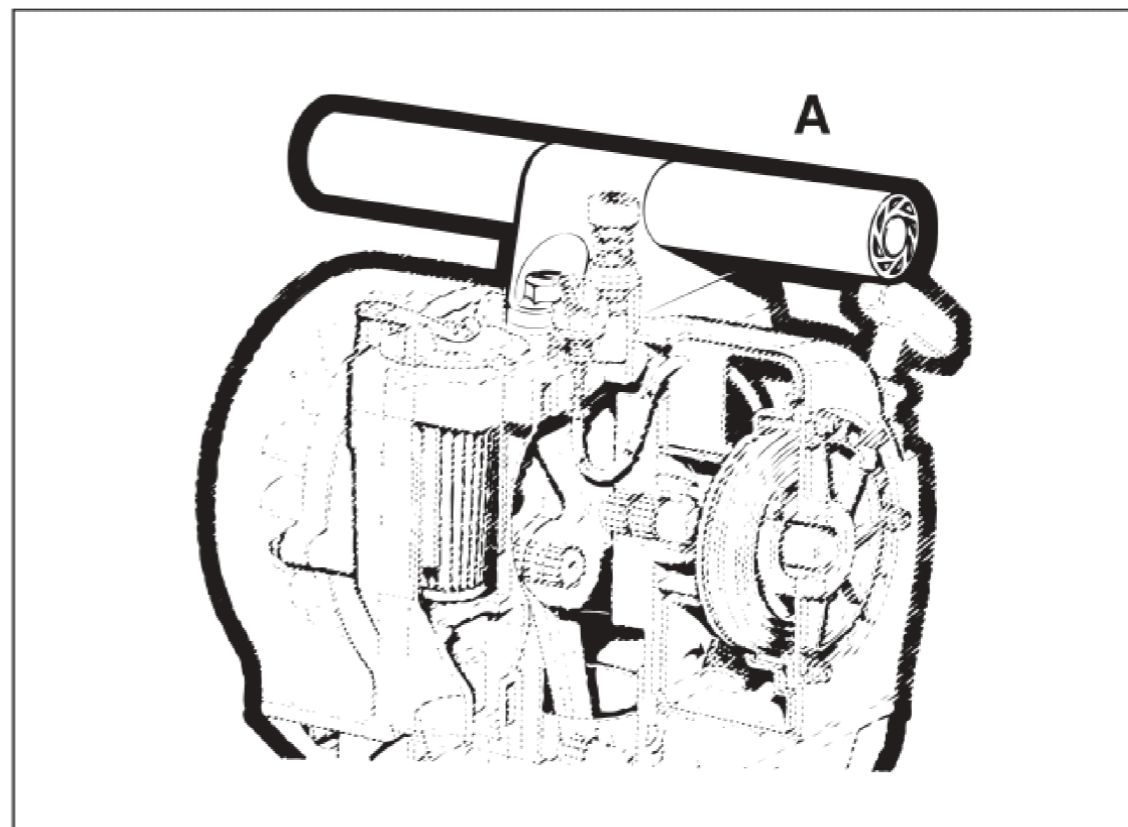


Fig. 1b

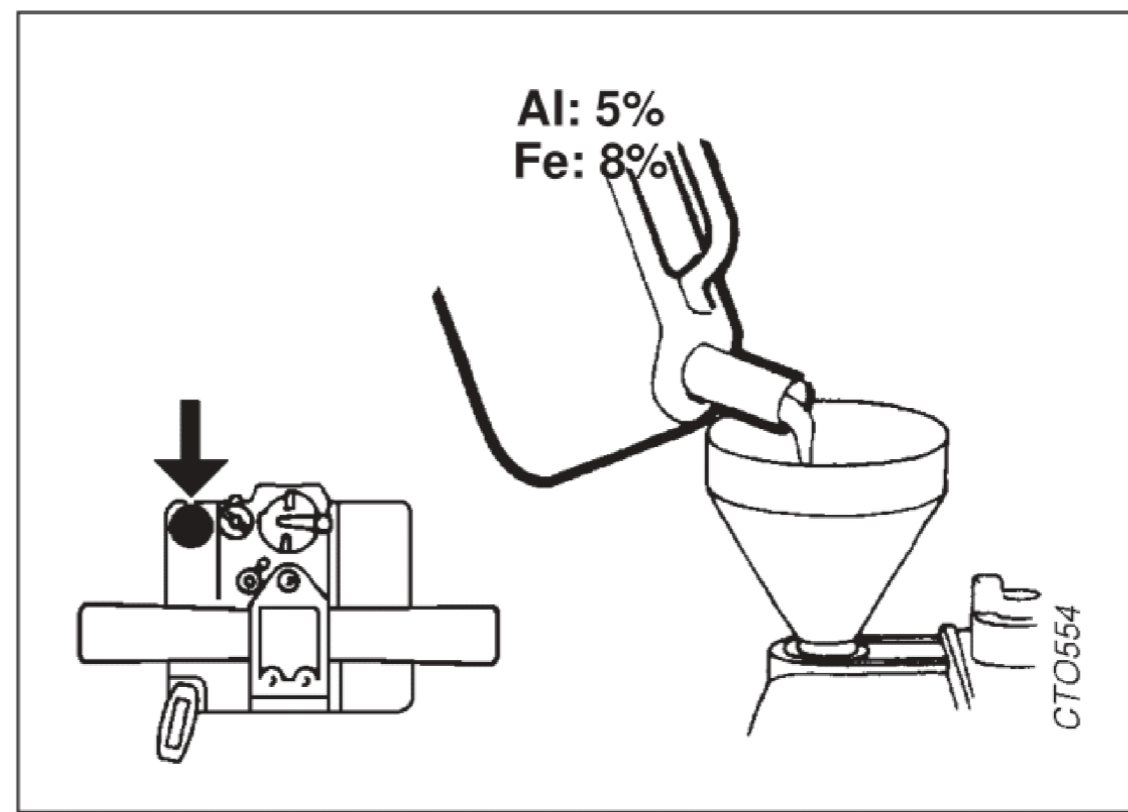


Fig. 2

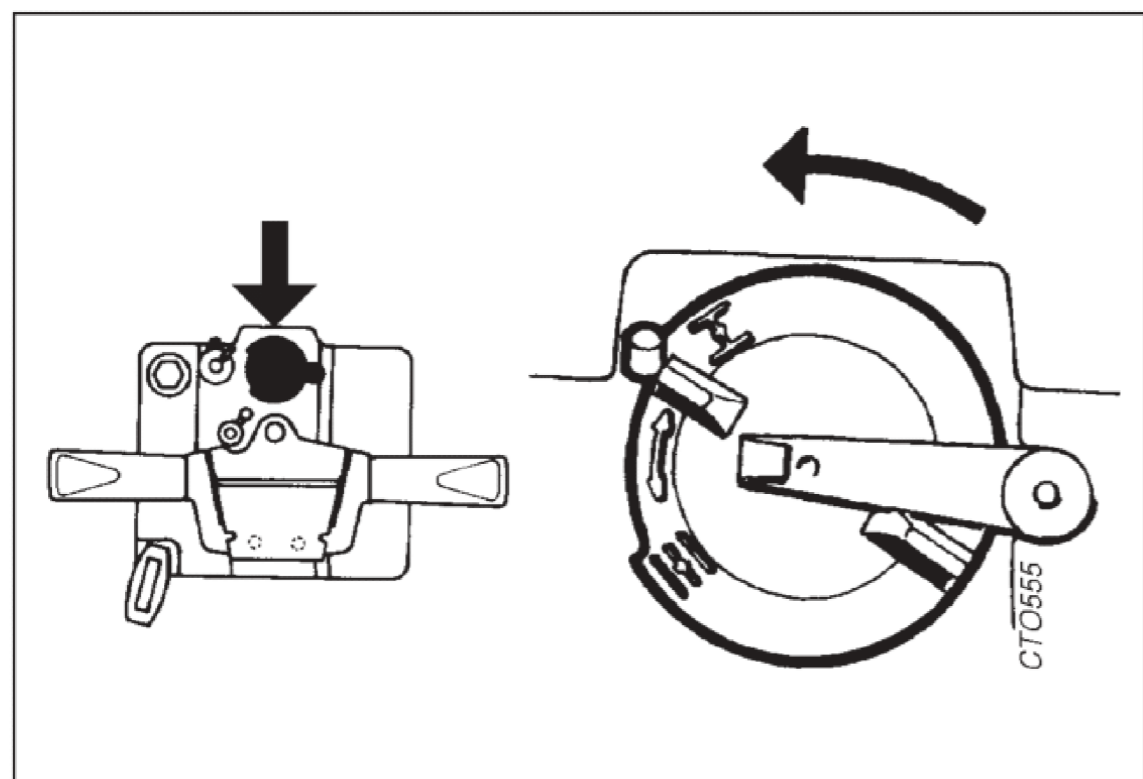


Fig. 3

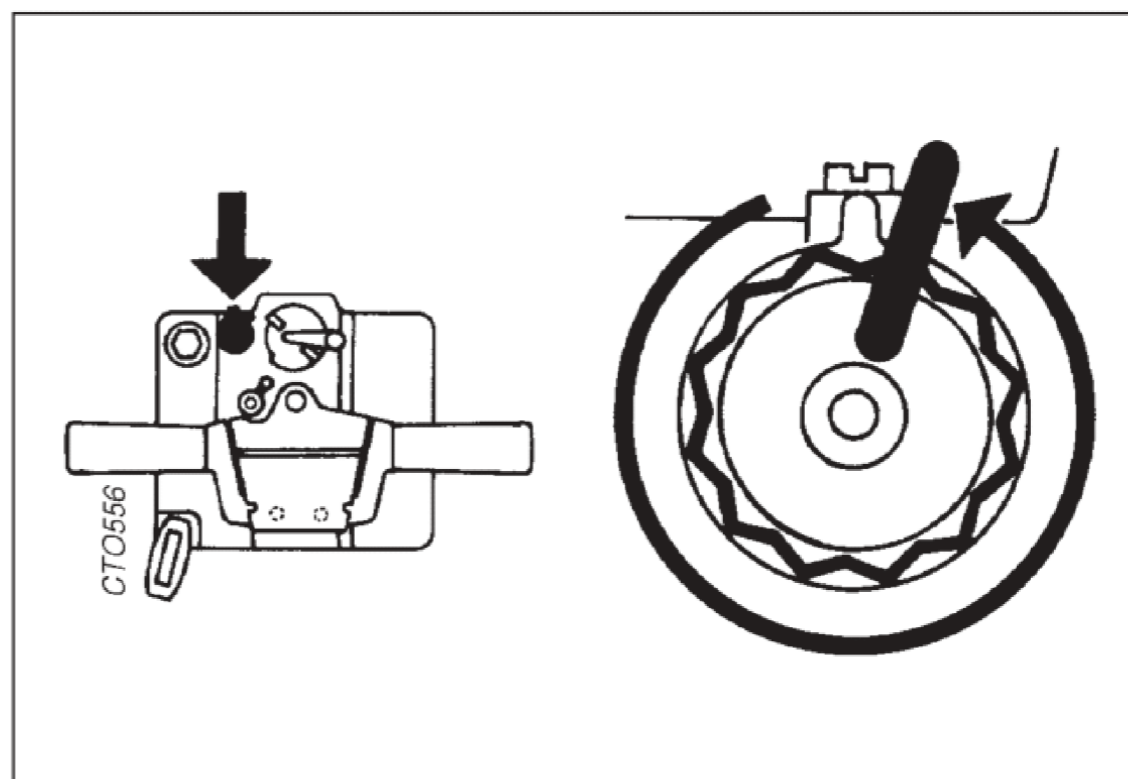


Fig. 4a

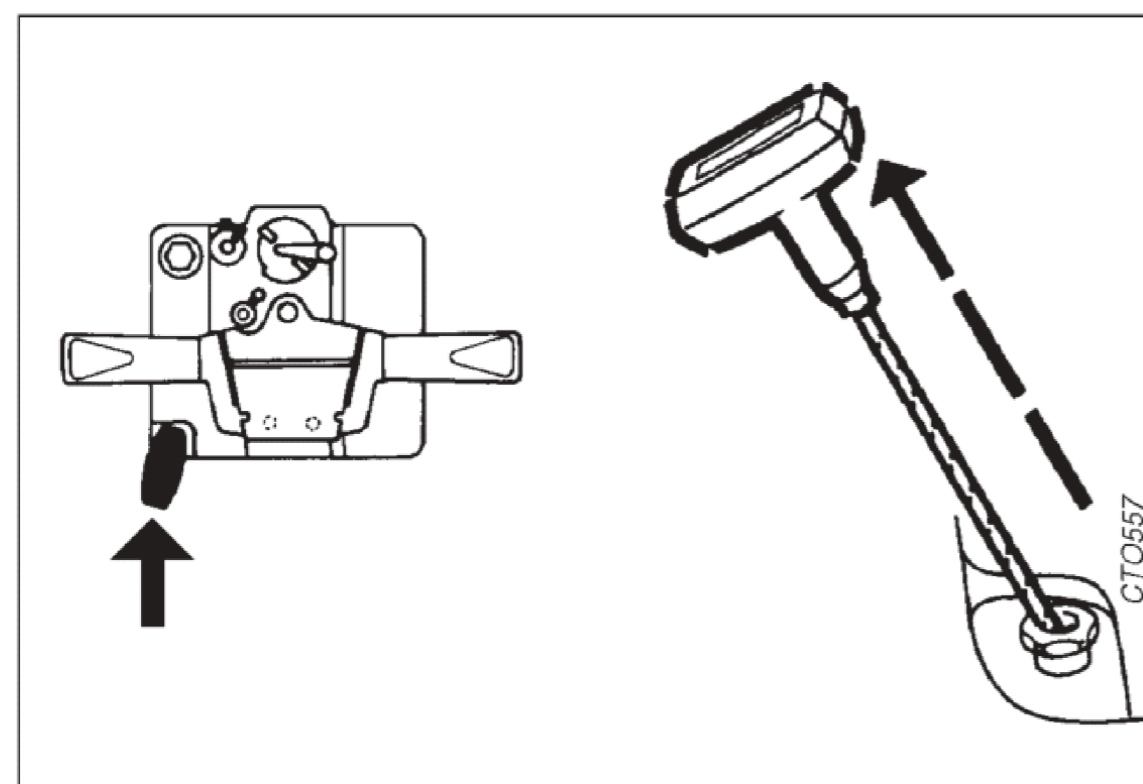


Fig. 4b

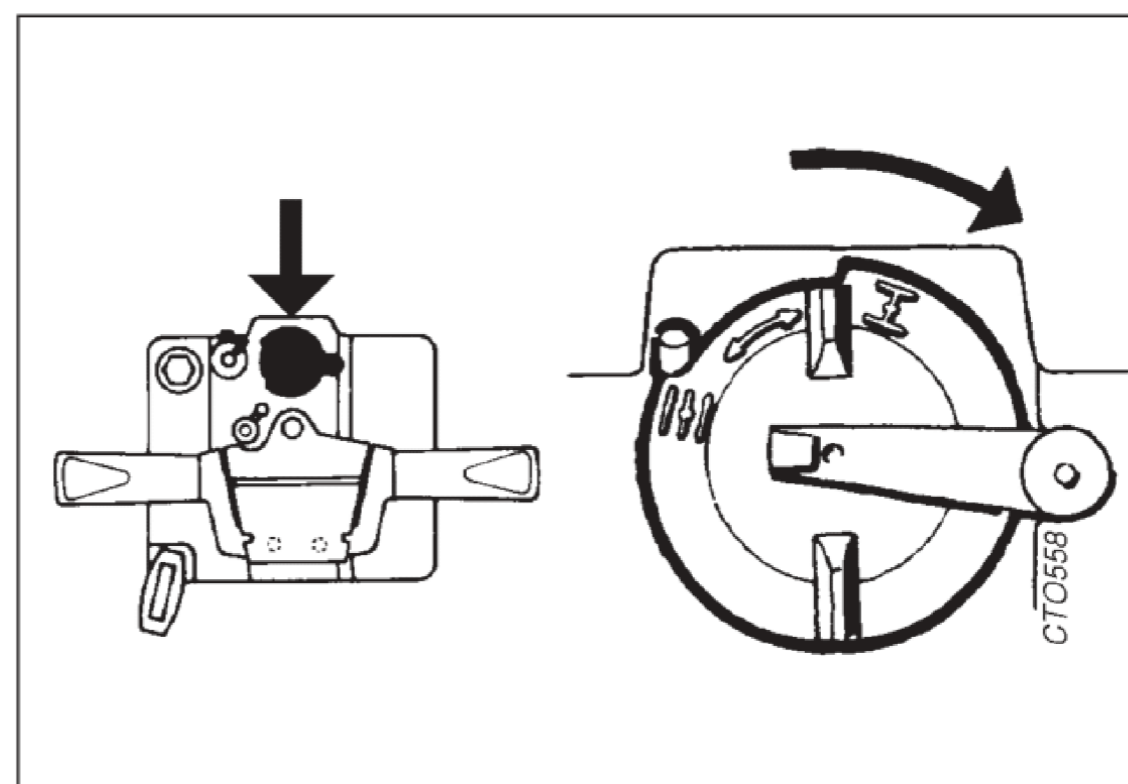


Fig. 5a



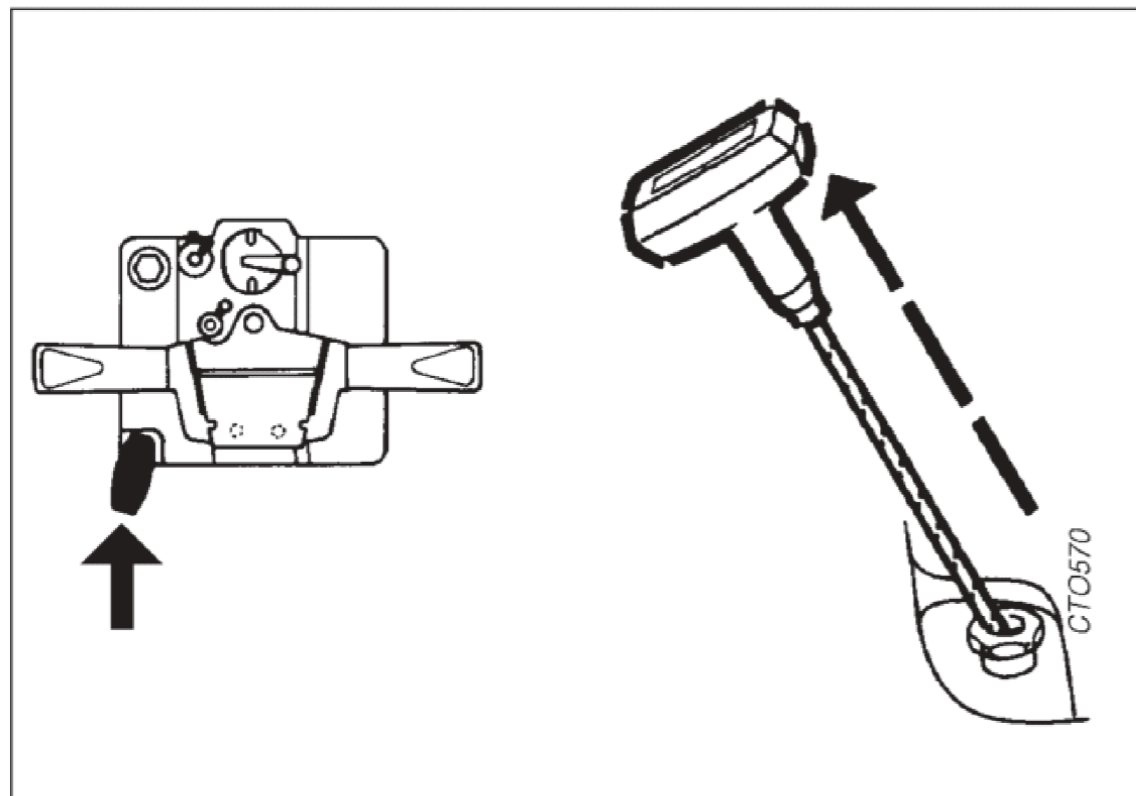


Fig. 5b

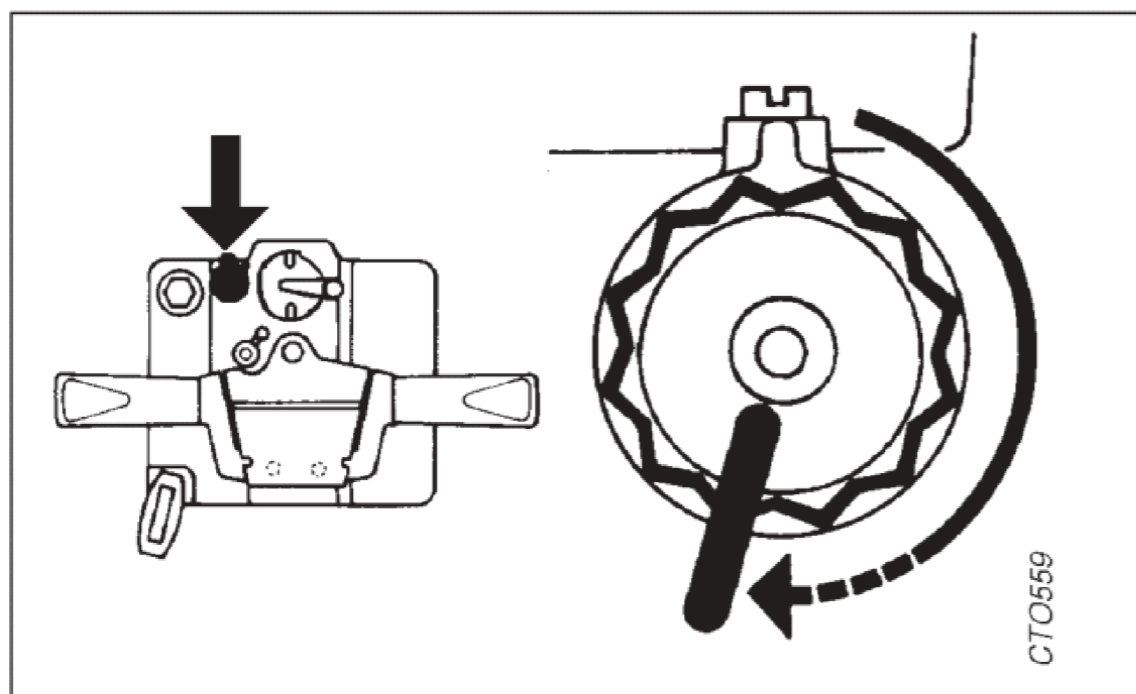


Fig. 5c

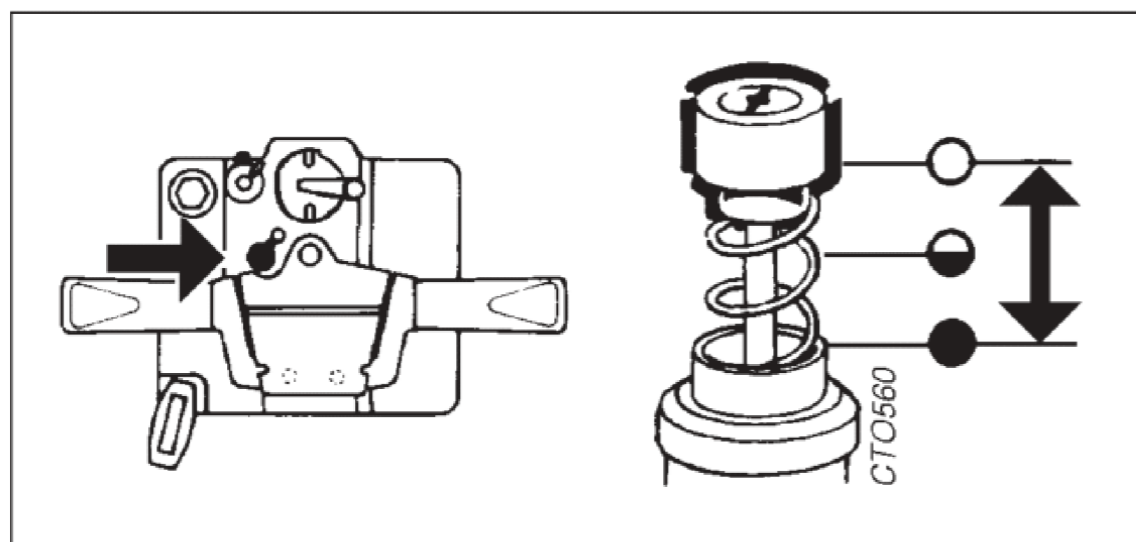


Fig. 6a

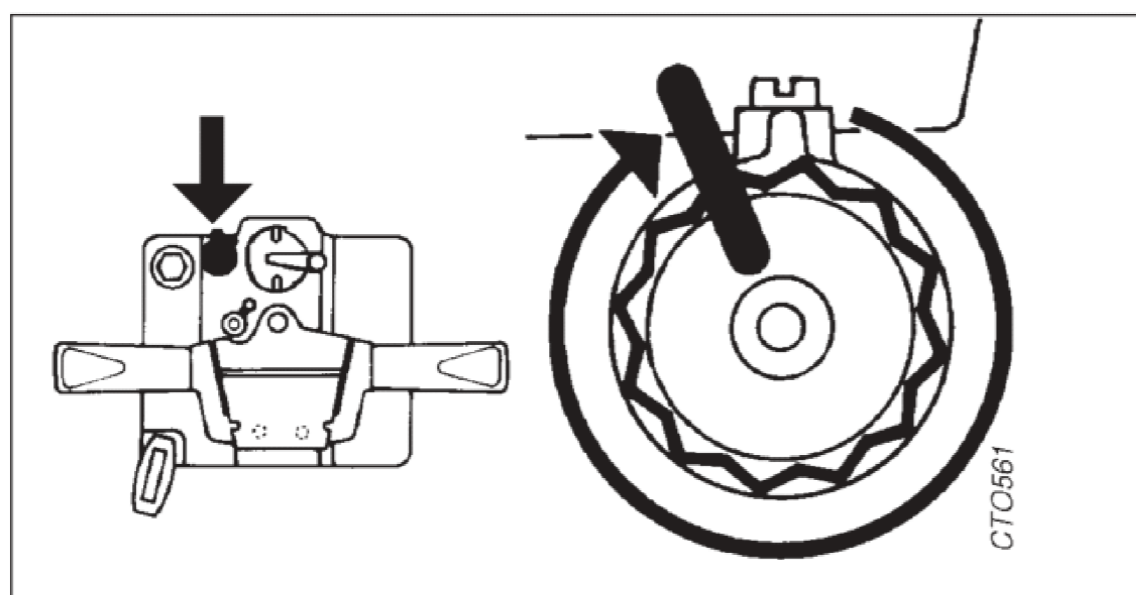


Fig. 6b

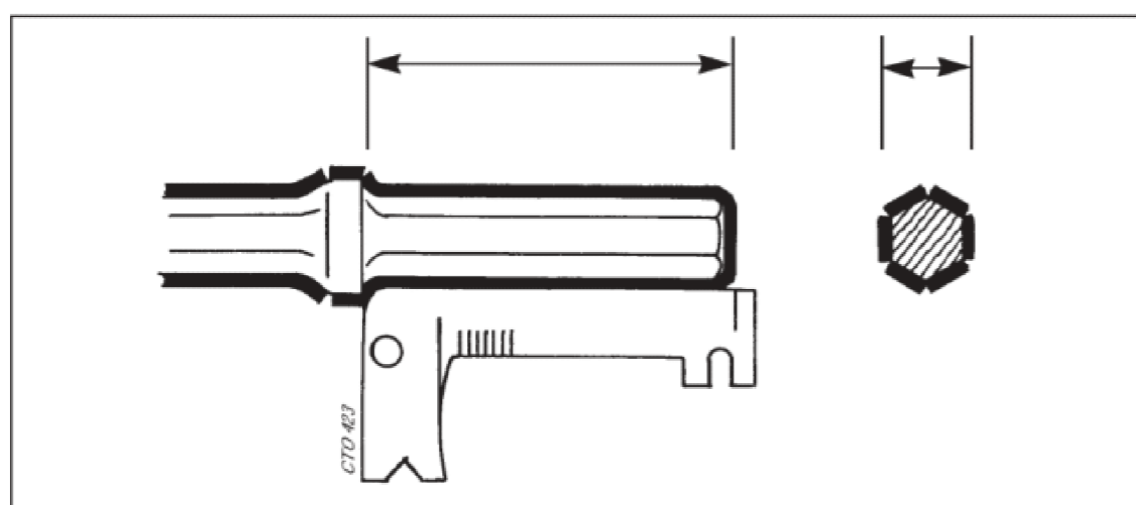


Fig. 7

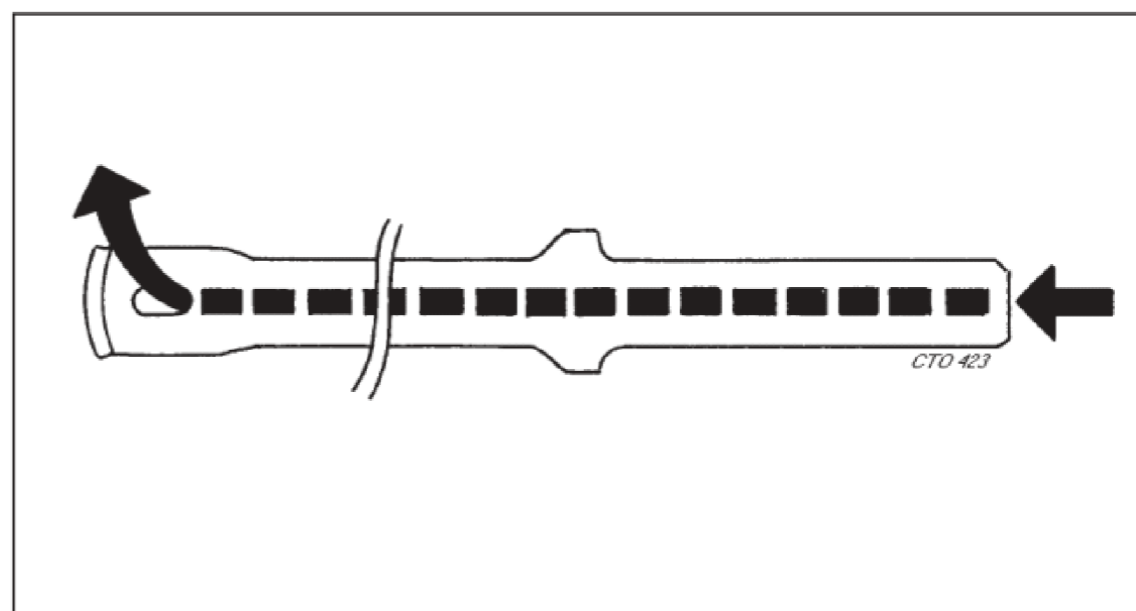


Fig. 8

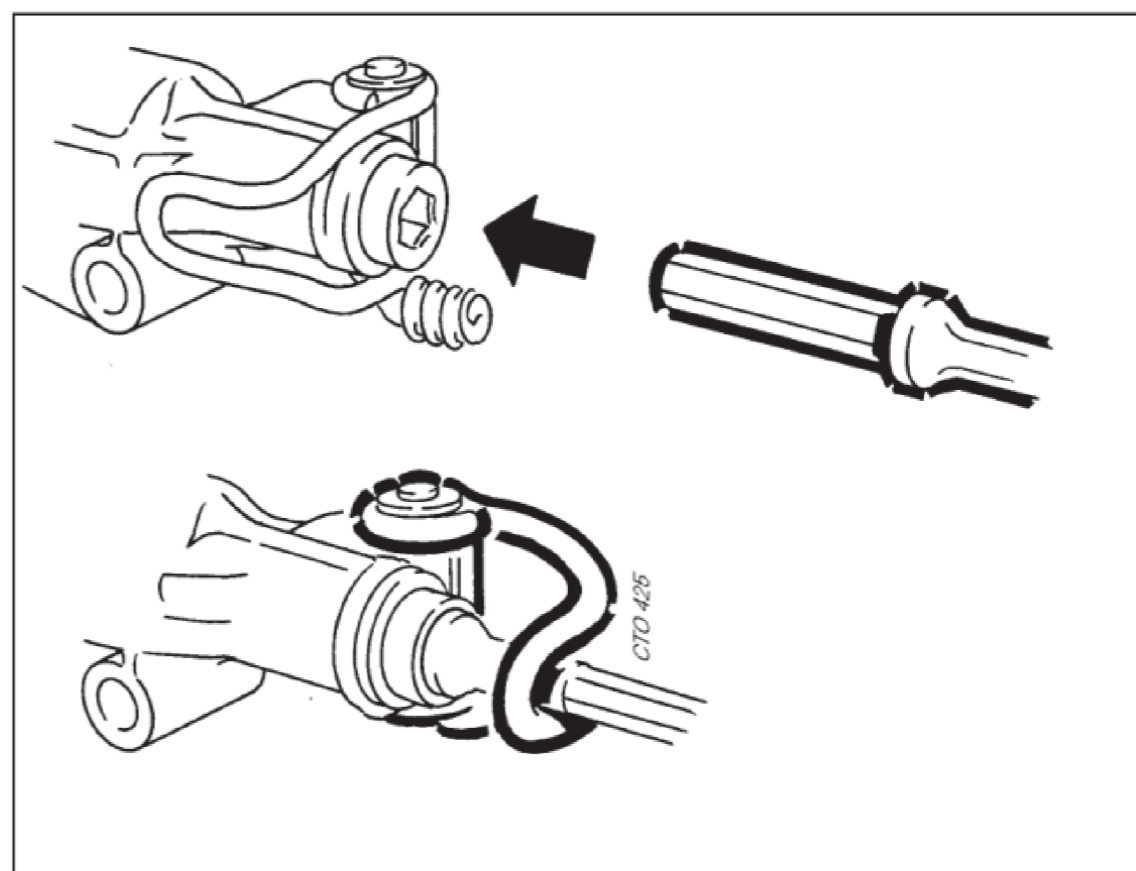


Fig. 9

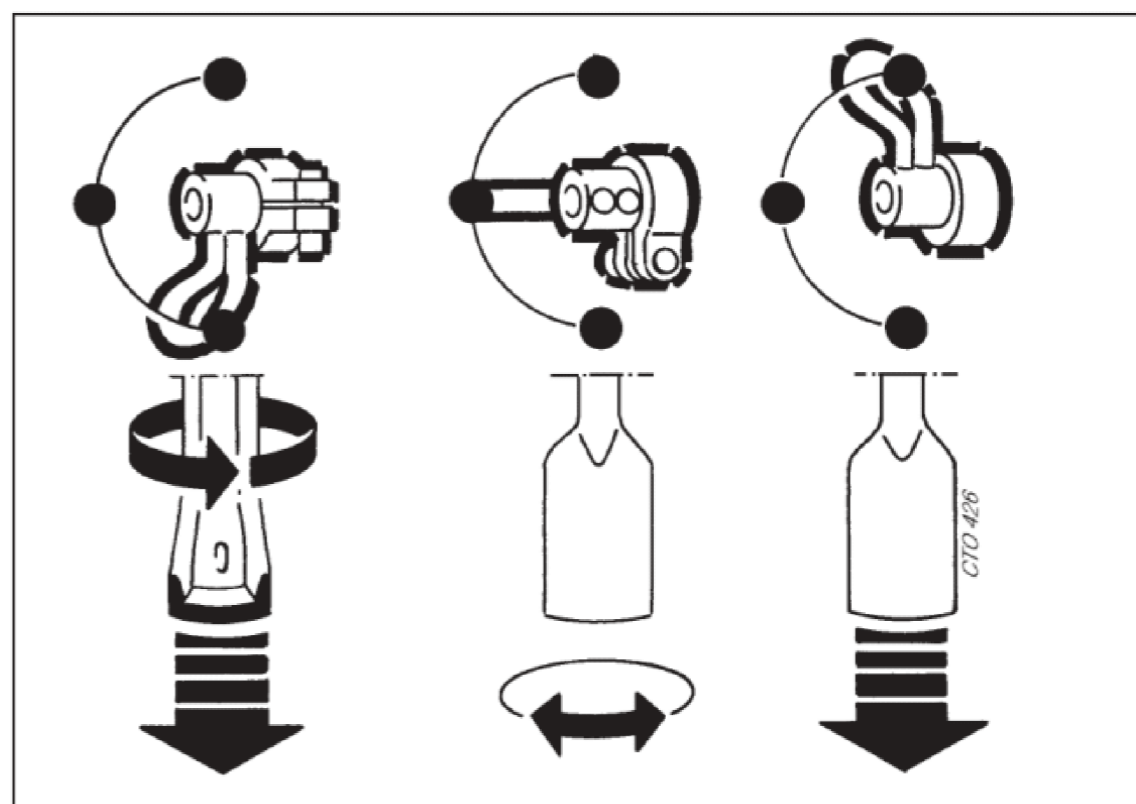


Fig. 10

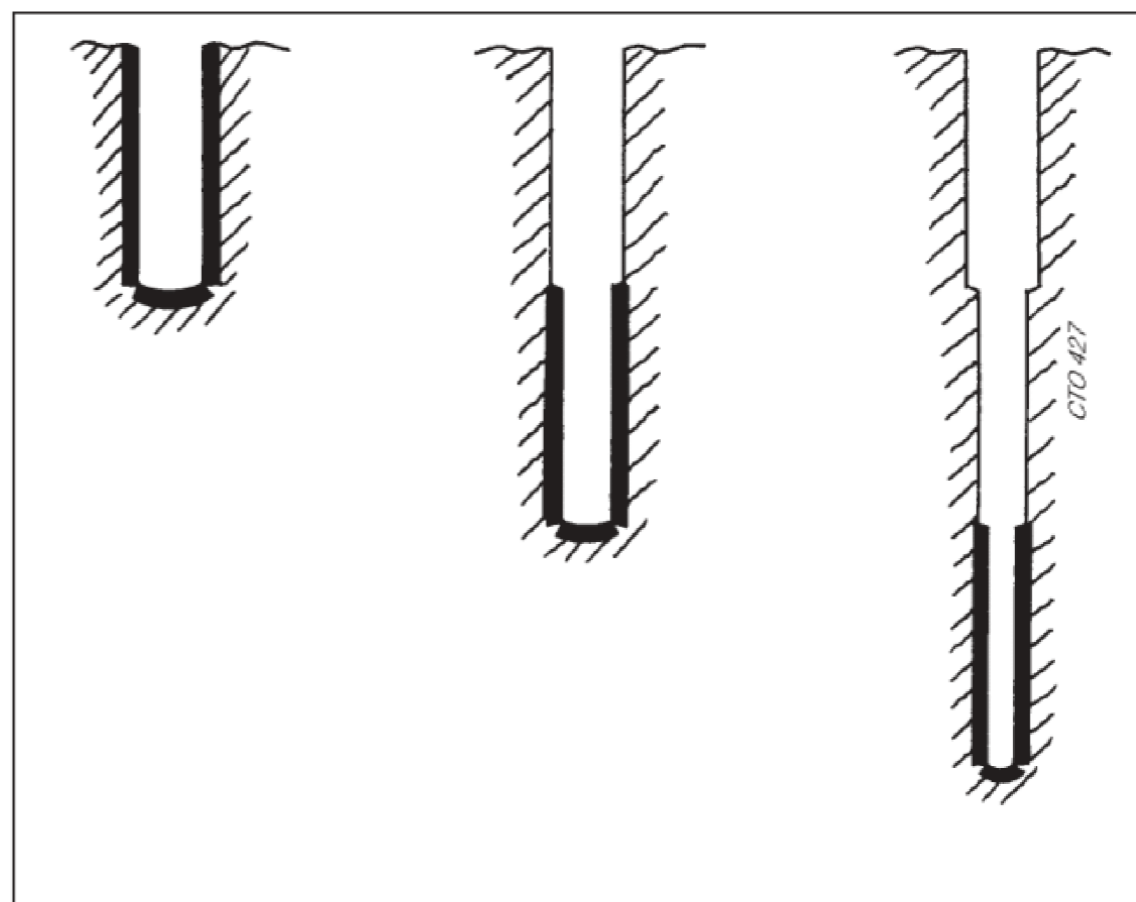


Fig. 11

## Safety regulations

These instructions contain important sections dealing with safety.

Special attention must be paid to all framed safety text that begins with a warning symbol (triangle) followed by a signal word, as shown below.



denotes a hazard or hazardous procedure which CAN lead to serious or life-threatening injuries if the warning is not observed.



denotes a risk or risky procedure which CAN lead to personal injury or damage to equipment if the warning is not observed.

### Also observe the following general safety rules:

- Before starting the machine, read through **these instructions** carefully.
- Also read through the **red safety instructions** before putting the machine to use.
- For reasons of product safety, the machine must not be modified.
- Use approved personal protective equipment.
- Use Atlas Copco Genuine Parts only.
- Always replace worn or damaged signs.

## Data

Pionjär 120.....	Combined rock-drill and breaker
Pionjär 140.....	Combined rock-drill and breaker
Pionjär 130.....	Breaker only
Pionjär 150.....	Breaker only

## Engine

Type .....	1-cylinder, two-stroke, air cooled
Cylinder displacement .....	185 cc
Crankshaft speed.....	2550-2650 rev/min (blows/min) (loaded machine on concrete chisel)
Carburettor.....	Floatless, with manual needle valve
Ignition system.....	Thyristor type, breakerless
Spark plug (recommended) .....	Motorcraft AE-6, Bosch W7AC
Spark plug gap.....	1.5 mm
Starter .....	Magnapull
Fuel type .....	Petrol, 90–100 octane, leaded or unleaded
Oil type.....	Atlas Copco two-stroke oil or a recommended two-stroke oil
Fuel mixture .....	Cast-iron cylinder 8%, 1:12 Aluminium cylinder 5%, 1:20
Tank volume.....	1.5 l
Fuel consumption .....	1.3-1.5 l/h

## Capacities, Pionjär 120, Pionjär 140

Max. drilling depth.....	6 m
Penetration rate .....	300-350 mm/min with 29 mm bit .....250-300 mm/min with 34 mm bit .....150-200 mm/min with 40 mm bit
Drill rotation speed.....	250 rev/min

## Other data

Tool shank .....22x108 mm

	Weight	Length	Width
Pionjär 120 .....	27 kg .....	730 mm .....	330 mm
Pionjär 130 .....	25 kg .....	700 mm .....	330 mm
Pionjär 140 .....	25 kg .....	760 mm .....	390 mm
Pionjär 150 .....	23 kg .....	730 mm .....	390 mm

*Connection of grinding machine - please see separate instructions.*

## Declaration of noise and vibration emission

Pionjär models		120	130	140	150
<b>Noise according to PN8NTC2</b>					
Measured sound pressure level	p dB(A)	98	98	99	99
Spread in method and production	kp dB(A)	4.0	4.0	4.0	4.0
Measured sound power level	w dB(A)	112	112	113	114
Spread in method and production	kw dB(A)	4.0	4.0	4.0	4.0
<b>Vibration according to EN28662</b>					
Measured vibration value	a m/s <sup>2</sup>	20	19	4.5	6.0
Spread in method and production	ka m/s <sup>2</sup>	5.0	5.0	3.0	3.0



## Main parts

### Pionjär 140 (fig. 1a) Pionjär 120 (fig. 1b)

- A. Handle (vibration damped on Pionjär 140/150)
- B. Fuel screw
- C. Choke
- D. Air filter
- E. Engine piston
- F. Compression chamber for flushing air
- G. Rotation mechanism (Pionjär 120 and 140)
- H. Throttle
- I. Starter handle
- J. Fuel tank
- K. Power take-off
- L. Gas duct
- M. Impact piston
- N. Gas-duct valve
- O. Function selector (Pionjär 120 and 140)
- P. Tool holder

## Starting and stopping the Machine

### Fuel mixing ratios (fig. 2)

Pionjär with cast-iron cylinder: oil-mixed petrol, 1 part oil to 12 parts petrol (8%).

Pionjär with aluminium cylinder: oil-mixed petrol, 1 part oil to 20 parts petrol (5%).

### Two-stroke oil

For the best results always use Atlas Copco's biodegradable two-stroke oil, which has been specially developed for Atlas Copco two-stroke engines. If Atlas Copco two-stroke oil is not available then use a two-stroke oil of good quality. Contact your nearest Atlas Copco dealer for a recommendation of two-stroke oils.

### Starting (figs. 3-6a)

When cold-starting the engine, turn the choke anti-clockwise (fig. 3).

Turn up the fuel needle (anti-clockwise) toward the stop (fig. 4a). Pull the starting handle until the engine starts (fig. 4b).

Open the choke fully by turning it fully clockwise (fig. 5a).

After starting the engine (fig. 5b), let it warm up for 2-3 minutes before putting the machine to work. Regulate the fuel supply so that the engine runs cleanly. During normal operation the fuel needle should be opened by approx. 0.5 of a turn (fig. 5c).

If the engine does not start, too much fuel may have entered the combustion chamber. In this case, close the fuel needle by turning it clockwise, and start the engine with the choke open.

The engine speed can be regulated by means of the throttle (fig. 6a). When the throttle is released to the "up" position, the maximum engine speed is obtained. Depressing the throttle halfway down gives the engine idling speed. To stop the engine, simply press the throttle to the bottom position.

If the machine is frequently started on top of long tools such as probing rods etc; a starter-cord bracket must be used to avoid damaging the cord and cord bushing.

**Starter-cord bracket for Pionjär 120, 130, 140, 150: Ordering No. 9238 2803 81.**

### Stopping the machine (figs. 6a and 6b)

To stop the engine, press the throttle all the way down to the bottom position (fig. 6a). Then close the fuel needle by turning it clockwise (fig. 6b).

N.B. Drain the fuel tank if the machine is to be transported or stored for longer periods of time.

## Operating the machine (fig. 7)

### Tool shank (fig. 7)

Use a shank gauge to check that the tool shank has the correct dimensions, i.e. 22x108 mm. Make sure that the shank is clean and that the tool is in good condition.

### Flushing (fig. 8)

During drilling, make sure that the flushing hole through the drill steel does not become blocked.

### Fitting the tool (fig. 9)

Shut down the machine. Insert the tool shank into the chuck and lock the tool retainer with your foot.

### Function selector - Drilling (fig. 10)

Turn the function selector downward. This engages rotation and flushing air for drilling.

### Function selector - Breaking (fig. 10)

To adjust the direction of the tool blade, first put the function selector into the neutral position.

Then lock the tool in the desired position by turning the selector upward. This locks the rotation.

### Collaring

Press the tool against the workpiece with the machine idling. Increase the speed of the engine once the bit has gained a foothold in the material to be drilled.

Grip the side handle to give better control of the machine.



**Drilling deep holes (fig. 11)**

First drill a short drill steel all the way into the hole. Then change to a longer drill steel with a slightly smaller bit diameter (approx. 1 mm smaller).

**Regular service****Air filter (fig. 12)**

Clean the air filter regularly, at least once a shift if the machine is in continuous use.

Turn the locking spring of the filter housing to the side, and take out the filter housing and filter. Tap the filter carefully with the palm of your hand, or blow through it carefully with compressed air.

N.B. Blow from the inside out.

If the filter is very dirty, it should be replaced.

Paper filters must never be washed.

**Gas duct (fig. 13)**

The gas duct must be checked regularly and cleaned of carbon deposits.

Pull the starter handle slowly until the arrow at the centre of the flywheel points upward (which means that the engine piston is at its upper turning position). Unscrew the gas-duct valve and take out the cleaning rod. Use the accompanying cleaning needle to clean both the duct and the cleaning rod.

Check that the ball in the gas-duct valve is not stuck.

**Maintenance****Spark plug (fig. 14)**

Remove the spark-plug cap and then remove the spark plug with the aid of a plug spanner.

If the spark plug is dirty or burned, it should be replaced. Use an original spark plug type Motorcraft AE6 or Bosch W7A.

If the spark plug is wet with fuel, dry it with a clean cloth and check the spark. Then pull the starting handle 2-3 times to get rid of any excess fuel.

Fit the spark plug back into the cylinder.

The electrode gap should be 1.5 mm.

**Changing the starter cord (figs. 15a-15d)**

Remove the protective cover of the starter mechanism, at the same time grasping the starter pulley so that it comes off with the cover. Carefully let the cover rotate in order to release the spring tension. Remove the old starter cord.

Fit the new starter cord.

Check the gasket between the fuel tank cover and the protective cover. Oil the starter pulley's needle bearing. Fit together the starter pulley and protective cover, with the starter spring fixed into the starter pulley. Wind all of the cord on to the starter pulley.

Pre-tension the starter spring by turning the pulley clockwise by approx. 360° relative to the cover before mounting the assembly. Pull the starter handle carefully in order to locate the cover correctly. Fit and tighten the nuts for the protective cover.

**Chuck bushing (fig. 16)**

If the chuck gauge provided can be inserted all the way into the chuck bushing (i.e. between the flats of the bushing), this indicates that the bushing is worn out and must be replaced.

**Fault finding**

If the machine does not start, is difficult to start, runs unevenly or has low power output, check the figures 2 - 16.

If, after checking the figures, the machine still does not function satisfactorily, please contact your nearest Pionjär workshop.

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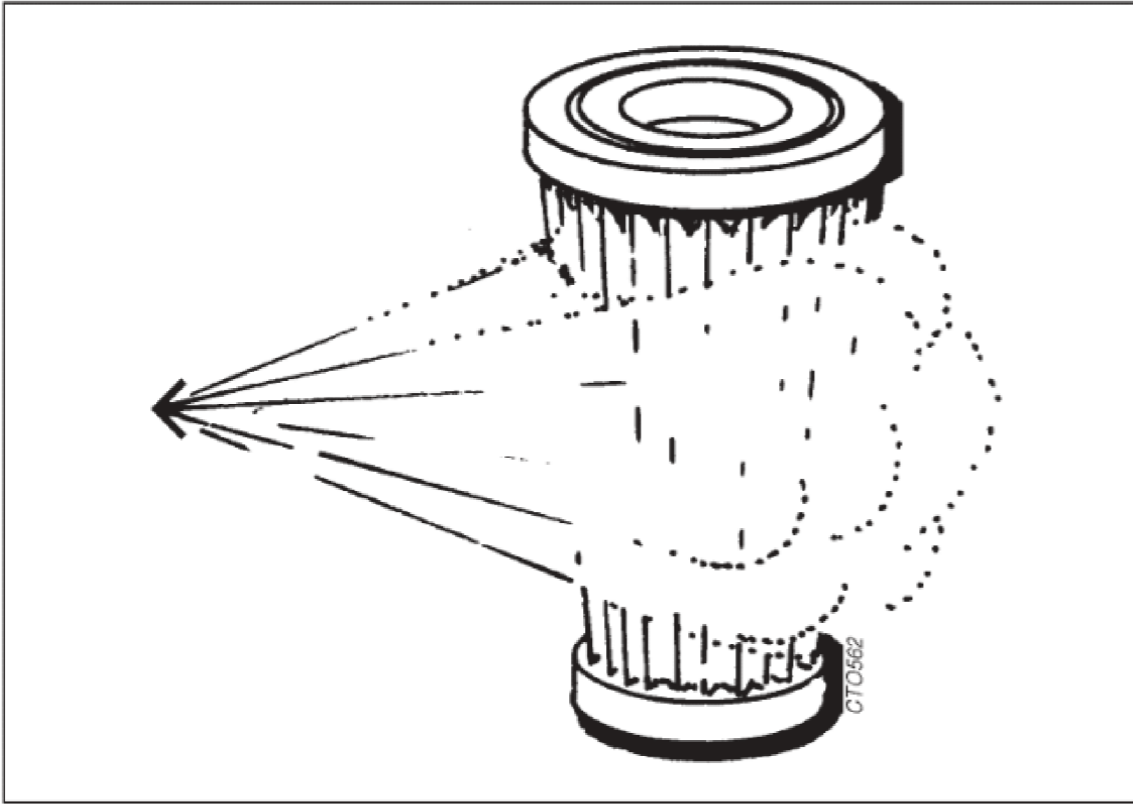


Fig. 12

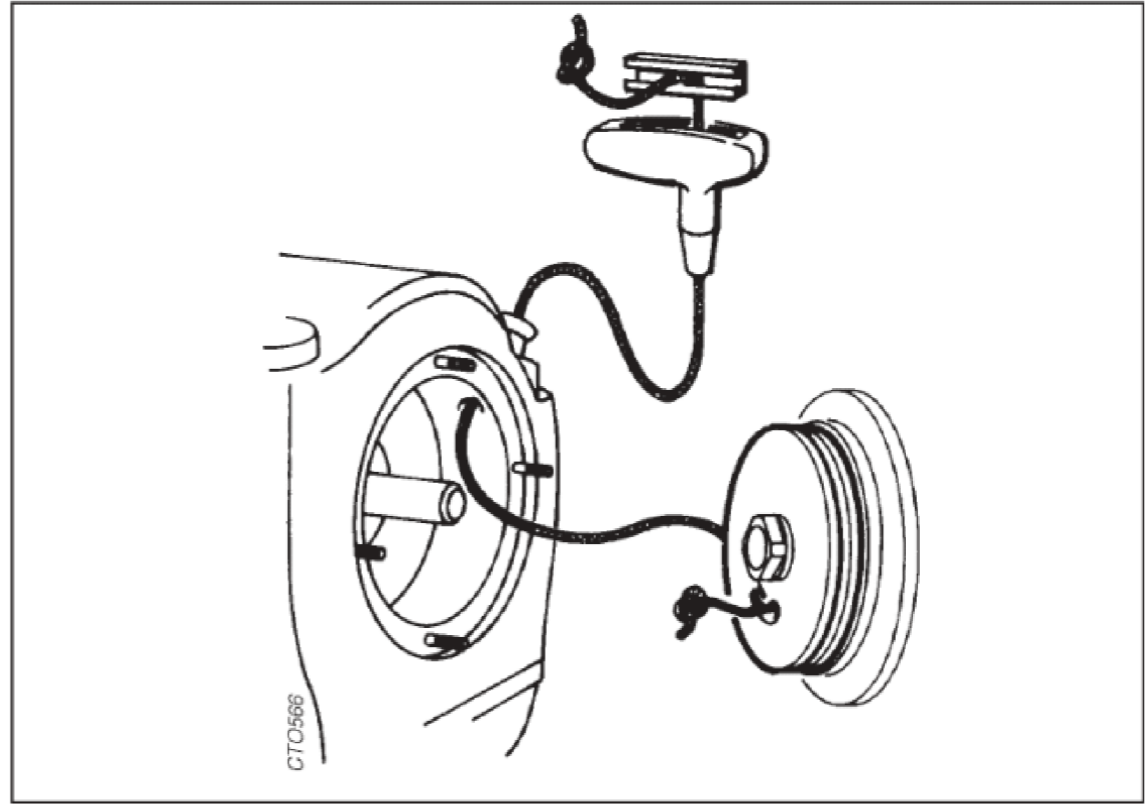


Fig. 15b

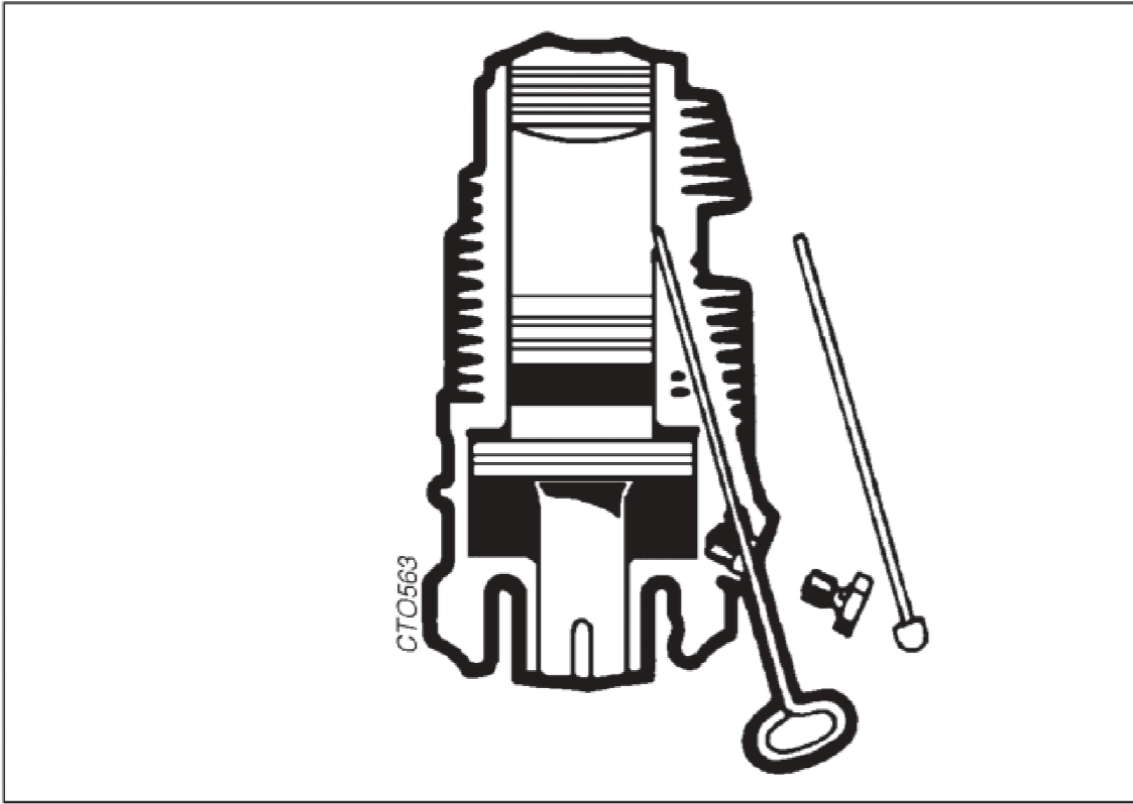


Fig. 13

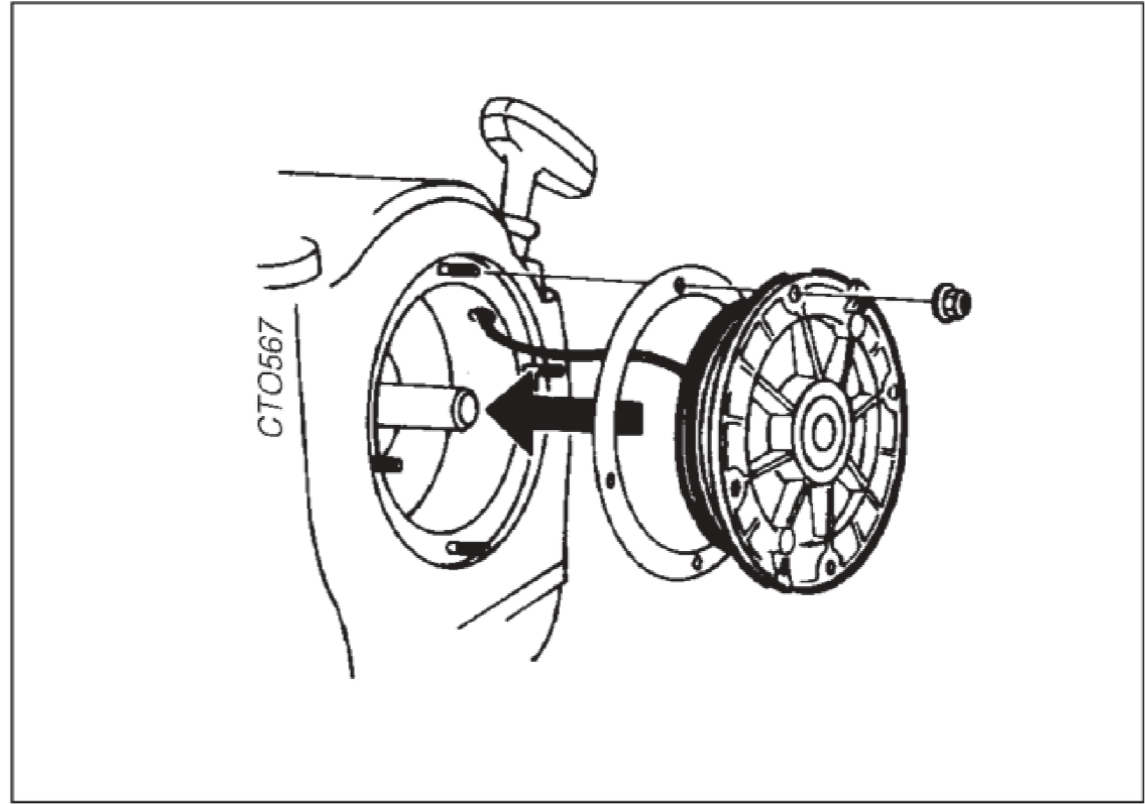


Fig. 15c

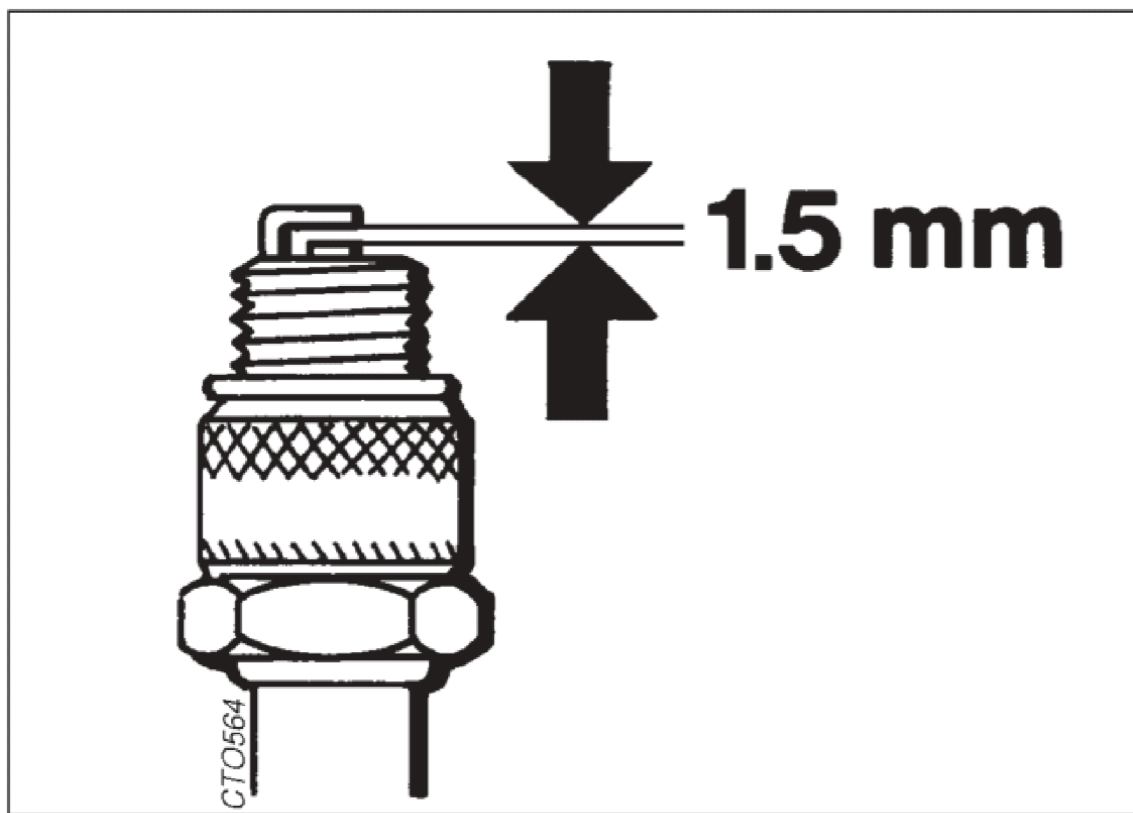


Fig. 14

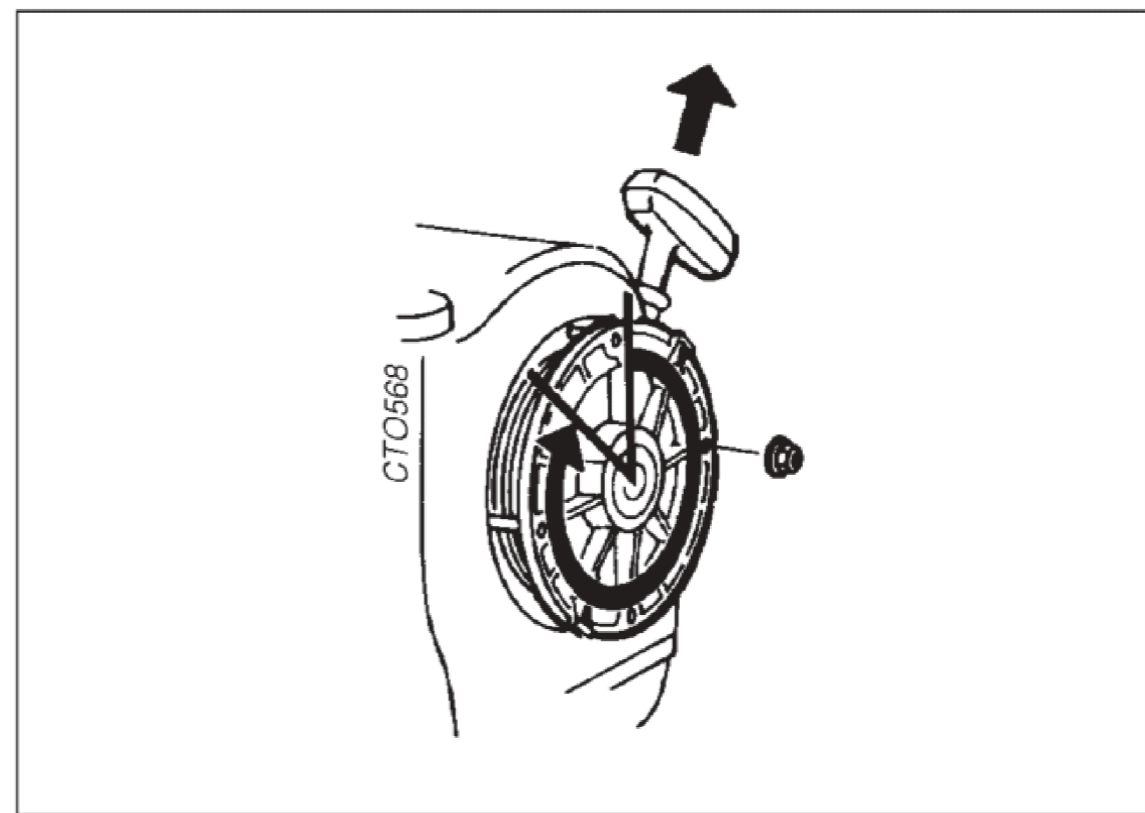


Fig. 15d

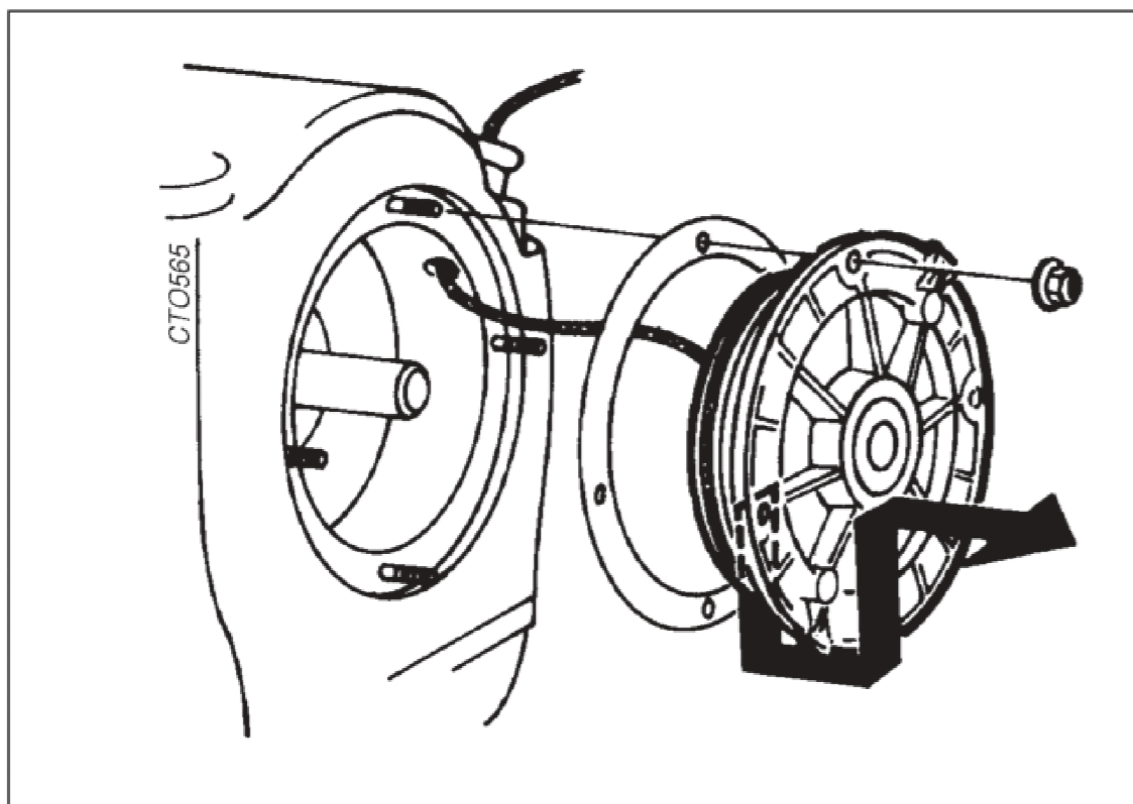


Fig. 15a

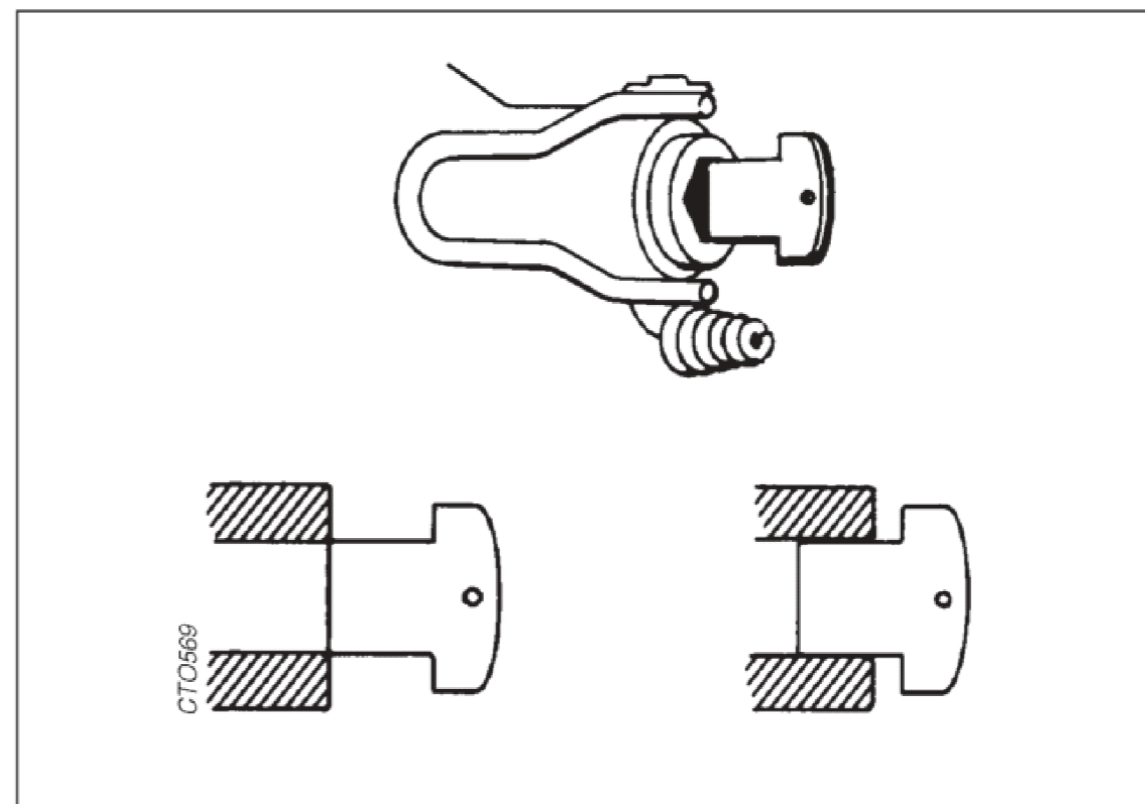


Fig. 16



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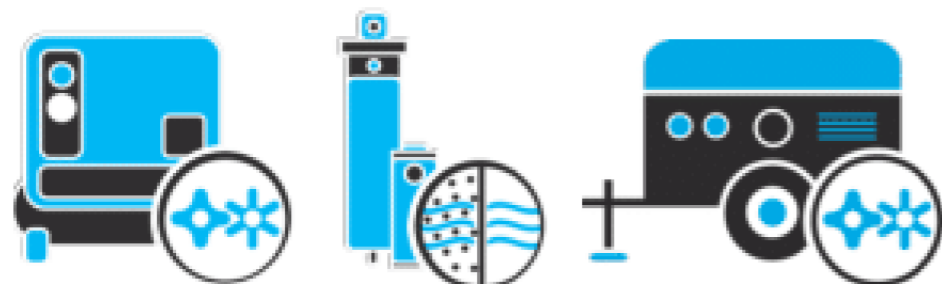
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КОМПРЕССОРОВ, СИСТЕМ ПОДГОТОВКИ СЖАТОГО ВОЗДУХА, ЭЛЕКТРОСТАНЦИЙ, СТРОИТЕЛЬНОГО ОБОРУДОВАНИЯ, ГЕНЕРАТОРОВ АЗОТА, ВОДОРОДА, КИСЛОРОДА, И ДРУГОГО ОБОРУДОВАНИЯ ДЛЯ ВАШЕГО БИЗНЕСА

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ПОДМЕННЫЙ КОМПРЕССОР  
НА ВРЕМЯ РЕМОНТА**

