



**ATEX APPROVED**

**AIR SAWS FOR THE PROFESSIONAL**



**JP901**  
*operating instructions*



## EC Declaration of Conformity

Cengar. Ltd.  
70, Lister Lane, Halifax  
England HX1 5DN

We the undersigned, declare under our sole responsibility that the following apparatus: -

Machine description: Cengar Air Saw  
Machine Type: JP901

Is in conformity with the following relevant EC legislation:

Machinery Directive 2006/42/EC  
Atex Directive 94/ 9/EC

Based on the following Harmonised Standards:

EN13463-1:2009

And therefore complies with the essential requirements of those directives.

Additional Information:

ATEX Coding II 2G T5  
Certificate No. TRAC09ATEX21236X  
Technical File No. CEEX-0803

Authorised Signature:

A handwritten signature in black ink, appearing to read "Ray J. Hatcher", with a horizontal line extending to the right.

Date:

15/12/09

Title of Signatory:

General Manager - Cengar Ltd.

# Cengar Air Saw Model JP 901

We recommend normal safe working practices should be followed as per the Health and Safety at Work Act, or the appropriate National and State Laws. We recommend that eye protection be worn when using Cengar Saws



## SPECIFICATIONS

Speed	10,000 strokes per minute
Stroke	9 mm
Air Consumption	0.116m <sup>3</sup> /minute
Air Pressure	5-6 Bar
Weight	1.6 Kgs.
Length	270 mm.
Height	70 mm.
Width	40 mm.
Vibration Level averaged	6.5 m/s <sup>2</sup> typical, 9.1 m/s <sup>2</sup> Max
Sound Pressure Level	68.6 db.
Sound Power Level	78.0 db.
Atex Certification	CE II 2G T5 X

## **CENGAR SAWS**

are hand held reciprocating saws designed to cut metals and plastics in production environments and can be used in Atex zoned areas where appropriate. They should only be used by trained operators who are responsible for the safety of themselves and others in the vicinity. Saw blades are capable of causing serious injury

Think safe

Act safe

Be safe

## **LUBRICATION**

Use Cengar Green Oil with longer lasting coating properties for best results. Cengar Green Oil is specially prepared to: -

- 1 Emulsify the water generally found in compressed air lines.
- 2 Give perfect mist lubrication.
- 3 Remain fluid at the low working temperature of compressed air tools.
- 4 Contains corrosion and oxidation inhibitors.

Incorrect oils if used will soon “break down” forming a sludge which will slow and eventually stop the action of the saw. See maintenance details.

## **INSTALLATION OF BLADES.**

Before attempting to insert or change a blade, ensure that the air supply is isolated by operating the isolation valve provided. Loosen the retaining grub screws with the key provided, insert blade through nosepiece so that the teeth are cutting on the pull stroke.

Locate the back screw in the hole in the end of the blade, for a positive drive, the front screw can then be tightened to grip the blade firmly.

## **BLADES**

Cengar “Shatterproof” Bi-Metal blades are specially prepared for use with Cengar saws, to withstand the high operating speeds, and give maximum cutting life.

Choose the teeth per inch to suit the characteristics of the material being cut.

Choose pitch to ensure that at least 3 or 4 teeth are cutting at the same time.

## OPERATING THE SAW

We recommend that eye protection be worn, and normal safe working practices observed as per the Health and Safety at work act, and the appropriate National and State Laws.

Set the isolator to “on” position, rest the blade on the material to be cut with the nosepiece firmly abutted to the work piece, with forward hand pressure, to prevent judder. Allow the Cengar Saw to cut under its own weight, with just a slight downward hand pressure to keep the teeth engaged in the cut. It is not necessary to put excessive downward pressure on the saw, this only accelerates blade wear, and prevents the saw from operating efficiently. Normal airline pressure of 5 to 6 Bar is required, any higher pressure only accelerates internal wear of the machine.

## USE IN HAZARDOUS AREAS

We strongly advise that the contact area of the blade on the work piece be quenched with coolant or water during cutting to dissipate any heat which may be created by the cutting process.

Anti-static conductive air hose must be used, with adequate earth bond continuity (resistance below 1 ohm), to ground any electrostatic charges.

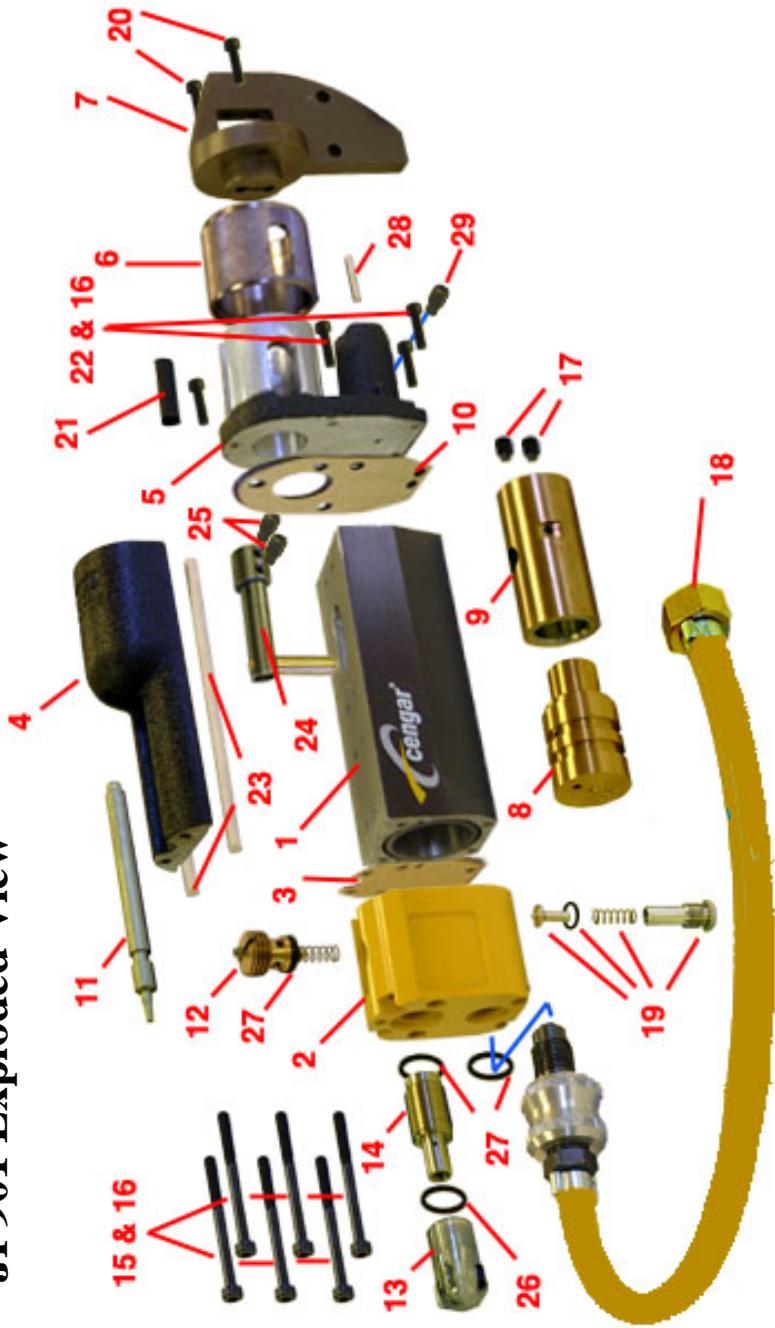
## MAINTENANCE AND GENERAL HINTS

Always ensure sufficient oil in the tool, especially when the saw is in constant use, and **ALWAYS** leave a small **air bubble inside** the oil container when refilling, to prevent ‘Hydraulic Lock’ which would impede lubrication.

The tool depends upon oil which acts not only as a lubricant, but also as a **PISTON SEAL**. No oil will result in overheating, piston scorching, excessive wear, and a costly repair.

Very little maintenance is required if the correct oil is used, but incorrect oil will soon break down into sludge, slowing down the action of the saw, necessitating its removal by use of Cengar M.S. Cleaner. It is imperative that the saw is re-oiled immediately after cleaning, with Cengar Green Oil.

# JP901 Exploded View



Item	Part No.	Description	Number Per Tool	Item	Part No.	Description	Number Per tool
<b>1</b>	9337	Body	1	<b>18</b>	9331C	Hose Isolator Assy	1
<b>2</b>	9335	Valve Unit	1	<b>19</b>	9334L	Starter Valve Assy	1
<b>3</b>	9336	Gasket rear	1		9334D	Starter Body Long	1
<b>4</b>	9339	Top Cover	1		9334C	Starter Spindle	1
<b>5</b>	9341	Front end	1		9334A	Starter Spring	1
<b>6</b>	9342	Silencer Guard	1		5007	Starter Seal	1
<b>7</b>	5045	Nosepiece	1	<b>20</b>	50412	Screws—Nosepiece	2
<b>8</b>	2253	Piston Rear	1	<b>21</b>	9343	Silencer Steady	1
<b>9</b>	2252	Piston Front	1	<b>22</b>	54200	Screws Front end	5
<b>10</b>	9340	Gasket Front	1	<b>23</b>	9338	Seal—Top Cover	2
<b>11</b>	9333	Trigger	1	<b>24</b>	9344	Pedestal	1
<b>12</b>	50034	Valve in Handle	1	<b>25</b>	5068	Blade Grip Screws	2
<b>13</b>	2257	Oil Cup	1	<b>26</b>	5206	Seal—Oil Cup	1
<b>14</b>	9332	Oiler	1	<b>27</b>	5108	Seal - Various	3
<b>15</b>	54500	Screw Valve to Body	6	<b>28</b>	93412	Bleed Tube	1
<b>16</b>	W54	Serrated Washer	11	<b>29</b>	5056	Bleed Screw	2
<b>17</b>	5068	Screw to pedestal	2		AK3	Allen Key	1

## **IF THE SAW DOES NOT OPERATE**

- 1 Check that the isolator is switched on.
- 2 Check air supply is correct.
- 3 Valve in handle (part no. 50034) could be worn and/or the seal is broken, blocking an air passage. Check and replace if necessary.
- 4 Ensure that all valve mounting screws in the body are tight, and that air is not escaping from the gaskets at the front or rear.
- 5 Ensure the oil container is filled with Cengar Green Oil, leaving a small air bubble to prevent 'Hydraulic Lock'.

## **MAINTENANCE**

### **REPLACEMENT OF TRIGGER VALVE - PART NO. 50034**

To replace the trigger valve, loosen the six main screws securing the valve block, but do not remove, this will allow the trigger bar to be drawn out, revealing the valve.

Replace the valve, until it is level with the top of the hole, refit the trigger bar, and finger tighten screws. Reconnect air supply, and check operation of trigger. No air should flow when released, full air should flow when depressed, if needed adjust height of valve  $\frac{1}{4}$  of a turn either way.

Re-tighten the six screws evenly and firmly.

**Always remove the saw from the airline before commencing any maintenance work.**

**Only fit genuine Cengar parts and accessories, or safety may be compromised**

## **OILER MECHANISM ADJUSTMENT**

The oiler is preset at the factory, and should not need attention, but slight adjustment can be made if desired. **Always ensure adequate lubrication.**

The jet is screwed in to be level with the end of the body. Tightening clockwise will reduce oil flow, and unscrewing anti-clockwise will increase the oil flow.

Lubricator performance is visible in the oil container as agitation of the oil during saw operation. (bubbles present in the oil) If no agitation is observed, reset the oiler.

## **PEDESTAL CLEARANCE WHEN REFITTING**

The pedestal, Item 24 (Part No 9344) must always be central to the bore of the front end. To ensure this, set clearance between the larger diameter blade grip section to be 0.025" (0.64 mm) above the body.

Check for free movement in the nosepiece, without any hard contact, which would cause wear and loss of power.

## **REPLACEMENT OF BLEED TUBE**

Fit tube Item 28 (Part No. 93412) and loosely fit two bleed screws Items 29 (Part No. 5056) Replace the nosepiece, and set one bleed screw level with the surface.

Set the machine running which will sound and feel uneven, tighten the second bleed screw slowly until the tool runs smoothly.

## **REPLACEMENT OF PISTONS**

Eventually the pistons will wear, but oversize pistons can be fitted at the factory, resulting in an 'as new' performance. This can be repeated several times before the bore is worn beyond repair.

## **NEVER**

- 1 **NEVER** fit breakable “All-Hard” blades in Cengar saws, these can shatter causing injury to yourself and others.
- 2 **NEVER** operate saw without wearing safety glasses
- 3 **NEVER** operate saw whilst you, or others are near the saw blade, which can cause serious injury or trapping
- 4 **NEVER** use excessive force, this may increase vibration above safe levels
- 5 **NEVER** hold the Cengar saw in a vice by the body, this will distort the bores, rendering the tool inoperative.
- 6 **NEVER** screw nameplates to the body, as the screws may penetrate an airway or bore.
- 7 **NEVER** operate the Cengar saw without lubrication.
- 8 **NEVER** be tempted to clean internal parts with anything other than a clean lint free cloth, and M.S. Cleaner, or Cengar Green oil.
- 9 **NEVER** modify Cengar saws or use non Cengar parts, this will invalidate ATEX approval, and warranty.

## **ALWAYS**

- 1 **ALWAYS** use Cengar green oil for best results. Keeping the saw clean and well oiled will give excellent reliability, and a long life.
- 2 **ALWAYS** use Cengar Bi-Metal Shatterproof blades, for safety, and best cutting performance
- 3 **ALWAYS** isolate the air supply when changing blades.
- 4 **ALWAYS** wear eye protection when using sawing machines.
- 5 **ALWAYS** keep the nosepiece abutted to the work to prevent excessive vibration
- 6 **ALWAYS** isolate the machine when not in use
- 7 **ALWAYS** keep others away from the saw blade to prevent injury or trapping
- 8 **ALWAYS** have machines vibration tested annually to ensure exposure is kept to the minimum

## ACCESSORIES

### Saw Blades



- MYT 150/18 Tapered yellow blade for glassfibre and general purpose 18 TPI  
MYN 150/18 Notched yellow blade for scrolling & fine work 18 TPI  
MC 220/24 220 mm long by 12 mm deep blade for general cutting 24 TPI

A range of 19 mm deep blades could be fitted in certain circumstances. Replace the nosepiece 5045 with 5075 to use 19 mm blades

### Cengar Green Oil



- GO 9107P Cengar Green Oil 250 ml plastic bottles for all air tools  
GO 9109 As above in 5 litre container  
GO 9110 As above in 25 litre container

### M.S. Cleaner

- MS 9105 1 litre General purpose cleaning fluid for air tools.  
MS 9125 50 ml. In a dropper bottle. - Enough for 10 tools  
**Always use plenty of Cengar green oil afterwards.**



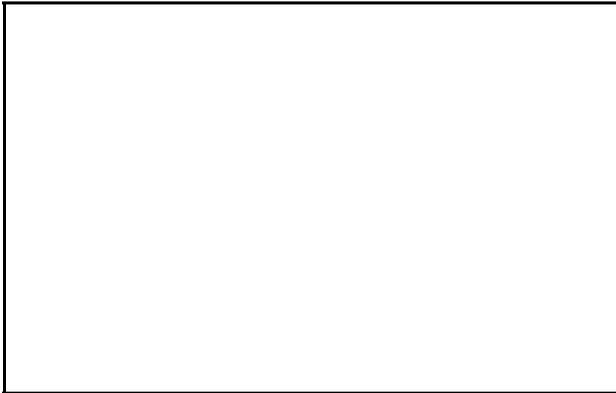
### Nosepiece

- 5045 Replacement nosepiece/blade guide for 12 mm deep blades  
5075 Alternative nosepiece/blade guide for 19mm deep blades

## **SERVICE**

We offer a full factory repair and refurbishment service for Cengar Saws, - normally within 5 working days. Quotations at no charge can be given before work is carried out.

## **DISTRIBUTOR ADDRESS**



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