



**ATEX APPROVED**



AIR SAWS FOR THE PROFESSIONAL

**JSZ**

*operating instructions*

 **MADE IN  
BRITAIN**

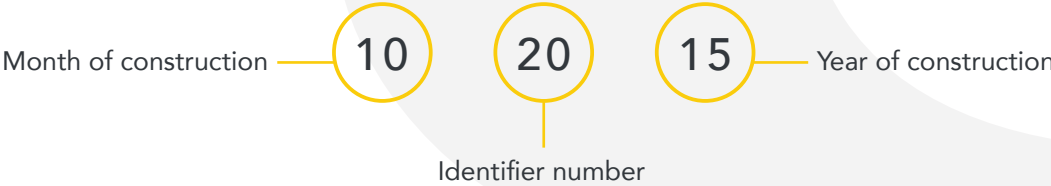
# CENGAR AIR SAW MODEL JSZ

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 and ear protection be worn when using Cengar Saws.

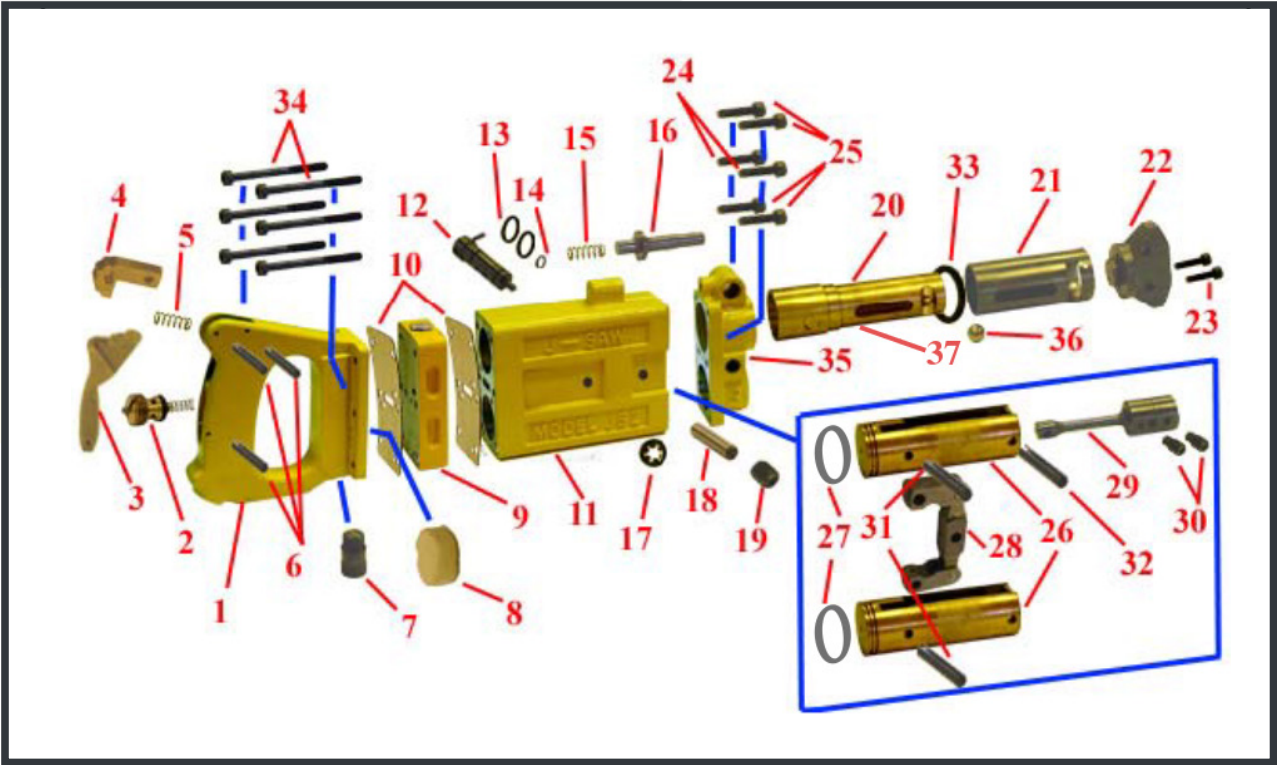
| SPECIFICATIONS           |                             |
|--------------------------|-----------------------------|
| Speed                    | 400/600 strokes per minute  |
| Stroke                   | 57mm                        |
| Air Compsumption         | 0.168m <sup>3</sup> /minute |
| Air Pressure             | 5-6 Bar                     |
| Weight                   | 5.5Kgs                      |
| Length                   | 448mm                       |
| Height                   | 141mm                       |
| Width                    | 54mm                        |
| Vibration Level Averaged | 1.38m/s <sup>2</sup>        |
| Sound Pressure Level     | 80.5db                      |
| Sound Power Level        | 89.9db                      |
| Atex Certification       | II 2G Ex h IIC T3 Gb        |

Each machine is marked with a serial number, which contains the year and month of construction, along with an identifier number.

Serial number example:



# JSZ EXPLODED VIEW



| ITEM | PART NO. | DESCRIPTION         | NUMBER PER TOOL | ITEM | PART NO. | DESCRIPTION        | NUMBER PER TOOL |
|------|----------|---------------------|-----------------|------|----------|--------------------|-----------------|
| 1    | 8301     | Handle              | 1               | 20   | 8319     | Conn. Rod Guide    | 1               |
| 2    | 50034    | Valve in Handle     | 1               | 21   | 8320     | Silencer Guard     | 1               |
| 3&4  | 8303     | Trigger & Catch     | 1               | 22   | 8324     | Nosepiece          | 1               |
| 5    | 9334A    | Spring              | 1               | 23   | 54160    | Screws – Nosepiece | 2               |
| 6    | 51834    | Pins for Trigger    | 3               | 24   | 53034M   | Screws             | 2               |
| 7    | 8306     | Oil Plug & Seal     | 1               | 25   | 53034M   | Screws             | 4               |
| 8    | 8307F    | Filter              | 1               | 26   | 8310     | Piston             | 2               |
| 9    | 8308     | Valve Unit Complete | 1               | 27   | 8310LS   | Piston Seal        | 2               |
| 10   | 8307     | Gasket              | 2               | 28   | 8312     | Link to Pistons    | 1               |
| 11   | 8309Z    | Body                | 1               | 29   | 8318     | Connecting Rod     | 1               |
| 12   | 8314     | Speed Regulator     | 1               | 30   | 55516    | Blade Grip Screws  | 2               |
| 13   | 5012     | 'O' Ring            | 2               | 31   | 51114    | Pins to Piston     | 2               |
| 14   | 5006     | 'O' Ring            | 1               | 32   | 51114    | Pin to Conn Rod    | 1               |
| 15   | 8315A    | Spring              | 1               | 33   | 0291     | 'O' Ring           | 1               |
| 16   | 8315     | Clamp Securing Pin  | 1               | 34   | 54134M   | Screws – Handle    | 6               |
| 17   | 8314C    | Regulator Retainer  | 1               | 35   | 8316     | Front End Bracket  | 1               |
| 18   | 55161    | Centre Shaft        | 1               | 36   | 9332C    | Détente Ball       | 1               |
| 19   | 8313M    | Screw for above     | 1               | 37   | -        | Serial Number      | -               |

# UK DECLARATION OF CONFORMITY

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

|                     |                |
|---------------------|----------------|
| Machine Description | Cengar Air Saw |
| Machine Type        | JSZ            |

Is in conformity with the following relevant UK legislation:

|                                                            |             |
|------------------------------------------------------------|-------------|
| Supply of Machinery (Safety) Regulations 2008 (as amended) |             |
| Statutory Instrument                                       | SI2016:1107 |

Based on the following Harmonised Standards:

|                      |                      |
|----------------------|----------------------|
| EN ISO 4414:2010     | EN ISO 80079-36:2016 |
| EN ISO 80079-37:2016 | EN 60079-0:2018      |

And therefore complies with the essential requirements of those directives.

The following ignition hazards have been identified when the equipment is in use, hot surfaces, mechanical sparks, electrostatic charging. These are mitigated as the equipment was designed to meet the requirements of protection concept constructional safety "c".

## ADDITIONAL INFORMATION

|                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|-----------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| UKEX coding                                         | Ex II 2G Ex h IIC T2 Gb                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Aproved Body                                        | Element Materials Technology Warwick Ltd<br>Unit 1, Pendle Place, Skelmersdale, West Lancashire<br>WN8 9PN, United Kingdom.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Identification Number                               | 0891                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Certificate No.                                     | EMA21UKEX0011X                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Authorised Signature                                | S. Shaw                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Date                                                | 10/05/2021                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Title of Signatory                                  | Commercial Manager - Cengar Ltd.<br>Springfield Works, Saddleworth Road, Greetland, Halifax HX4 8LZ                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Special Conditions of Safe Use (on the certificate) | <ol style="list-style-type: none"> <li>1. Suitably approved static dissipating or conductive air hose only to be attached to the equipment and terminated to the air supply.</li> <li>2. Operator to ensure that there is less than 1 Ohm resistance between the ground at the air source and any metallic object to be cut with the equipment.</li> <li>3. The equipment shall be supplied from a clean air source in an area known to not contain a potentially explosive atmosphere.</li> <li>4. A filter must be fitted to the supply compressor inlet to prevent dust airflow within the equipment.</li> <li>5. To comply with ATEX certification regulations it is necessary to use Cengar branded Blades with Cengar Saws.</li> </ol> |

1. Under normal working conditions can be used in a Zone 1 environment.

2. Classification based on tests cutting a selection of steels & composite materials (MB, MC, Yellow, JSZ ) Blades.

# EU DECLARATION OF CONFORMITY

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

|                     |                |
|---------------------|----------------|
| Machine Description | Cengar Air Saw |
| Machine Type        | JSZ            |

Is in conformity with the following relevant EC legislation:

|                     |            |
|---------------------|------------|
| Machinery Directive | 2006/42/EC |
| Atex Directive      | 2014/34/EU |

Based on the following Harmonised Standards:

|                      |                      |
|----------------------|----------------------|
| EN ISO 4414:2010     | EN ISO 80079-36:2016 |
| EN ISO 80079-37:2016 | EN 60079-0:2018      |

And therefore complies with the essential requirements of those directives.

The following ignition hazards have been identified when the equipment is in use, hot surfaces, mechanical sparks, electrostatic charging. These are mitigated as the equipment was designed to meet the requirements of protection concept constructional safety "c".

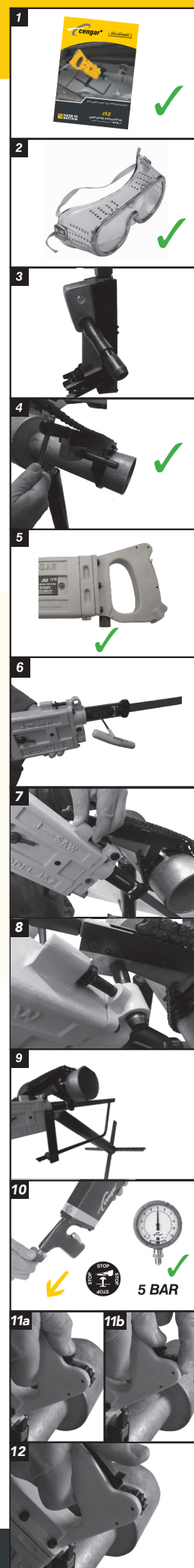
## ADDITIONAL INFORMATION

|                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|-----------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ATEX Coding                                         | Ex II 2G Ex h IIC T2 Gb                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Notified Body (Atex holding technical file)         | Element Materials Technology Rotterdam B.V.<br>Voorerf 18, 4824 GN Breda, Netherlands                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Identification Number                               | 2812                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Certificate No.                                     | EMT18ATEX 0032X                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Authorised Signature                                | S. Shaw                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Date                                                | 06/02/2020                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Title of Signatory                                  | Commercial Manager - Cengar Ltd.<br>Springfield Works, Saddleworth Road, Greetland, Halifax HX4 8LZ                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
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1. Under normal working conditions can be used in a Zone 1 environment.

2. Classification based on tests cutting a selection of steels & composite materials (MB, MC, Yellow, JSZ ) Blades.





## INSTRUCTIONS

1. Always read the instructions.
2. Always wear safety glasses.
3. Fit the spigot (CP1/3) into the appropriate side of the clamp in the front of the two holes in the clamp body and tighten securing nut.
4. Position the clamp on the pipe with the chain around the pipe and tighten using the tommy bar (end of CP1/6). Ensure the clamp is perpendicular to the pipe for an accurate cut.
5. Locate oil plug (p/n 8306) on underside of handle. Fill the cavity with Cengar Green Oil and replace plug.
6. Without connecting the air supply, fit the appropriate blade with the teeth upper most. Ensure BOTH screws are fully tightened using supplied T key.
7. Mount the machine onto the spigot whilst pulling back clamp securing pin (8315). Slide the machine into the groove in the spigot. Ensure it is correctly located.
8. When mounted correctly the blade should be under the pipe so that the weight of the machine applies the cutting force to the blade.
9. If using a long blade (MJ450) for larger diameter pipes attach the supplied bow guide using the fixings provided to ensure a straight cut is achieved.
10. Attach air supply (5-6 bar).
11. Press the trigger to start the machine and lock trigger in place with the catch. Gently bring the blade into contact with the work gradually release the weight of the machine to allow the cut to take place without extra force.
12. When the cut is complete release the catch to stop the machine. Remove air supply before attempting to remove machine from spigot (reverse of 5 above).

## CENGAR BLADE SELECTION FOR CUTTING SOLID MATERIAL

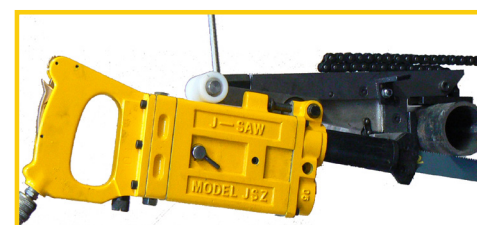
### AVAILABLE BLADE PITCHES

| Thickness (mm) | 14 TPI | 10-14 TPI Varipitch | 10 TPI | 8 TPI | 6 TPI |
|----------------|--------|---------------------|--------|-------|-------|
| 10             | 6      | 5                   | 4      | 3     | 2     |
| 15             | 8      | 7                   | 6      | 5     | 4     |
| 20             | 11     | 9                   | 8      | 6     | 5     |
| 25             | 14     | 12                  | 10     | 8     | 6     |
| 30             | 17     | 14                  | 12     | 9     | 7     |
| 35             | 19     | 17                  | 14     | 11    | 8     |
| 40             | 22     | 19                  | 16     | 13    | 9     |
| 45             | 25     | 21                  | 18     | 14    | 11    |
| 50             | 28     | 24                  | 20     | 16    | 12    |
| 55             | 30     | 26                  | 22     | 17    | 13    |
| 60             | 33     | 28                  | 24     | 19    | 14    |
| 65             | 36     | 31                  | 26     | 20    | 15    |
| 70             | 39     | 33                  | 28     | 22    | 17    |
| 75             | 41     | 35                  | 30     | 24    | 18    |
| 80             | 44     | 38                  | 31     | 25    | 19    |
| 85             | 47     | 40                  | 33     | 27    | 20    |
| 90             | 50     | 43                  | 35     | 28    | 21    |
| 95             | 52     | 45                  | 37     | 30    | 22    |
| 100            | 55     | 47                  | 39     | 31    | 24    |

The numbers in the coloured boxes indicates the actual number of teeth which will be in contact with the work

### BLADE SELECTION

| Pipe Diameter (mm) | JSZ/JSM     |
|--------------------|-------------|
| 150                | 300mm blade |
| 300                | 450mm blade |



#### GENERAL RULE:

- No less than 3 teeth in contact
- Ideally between 6 and 12 teeth in contact
- No more than 24 teeth in contact

Visit our website [www.cengar.com](http://www.cengar.com) to view our range of blades, clamps and accessories.

## DO'S & DON'TS

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** isolate the machine when not in use.
6. **ALWAYS** keep others away from the saw blade to prevent injury or trapping.
7. **ALWAYS** have machines vibration tested annually to ensure exposure is kept to the minimum.
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.



## **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**

Cengar Ltd.  
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