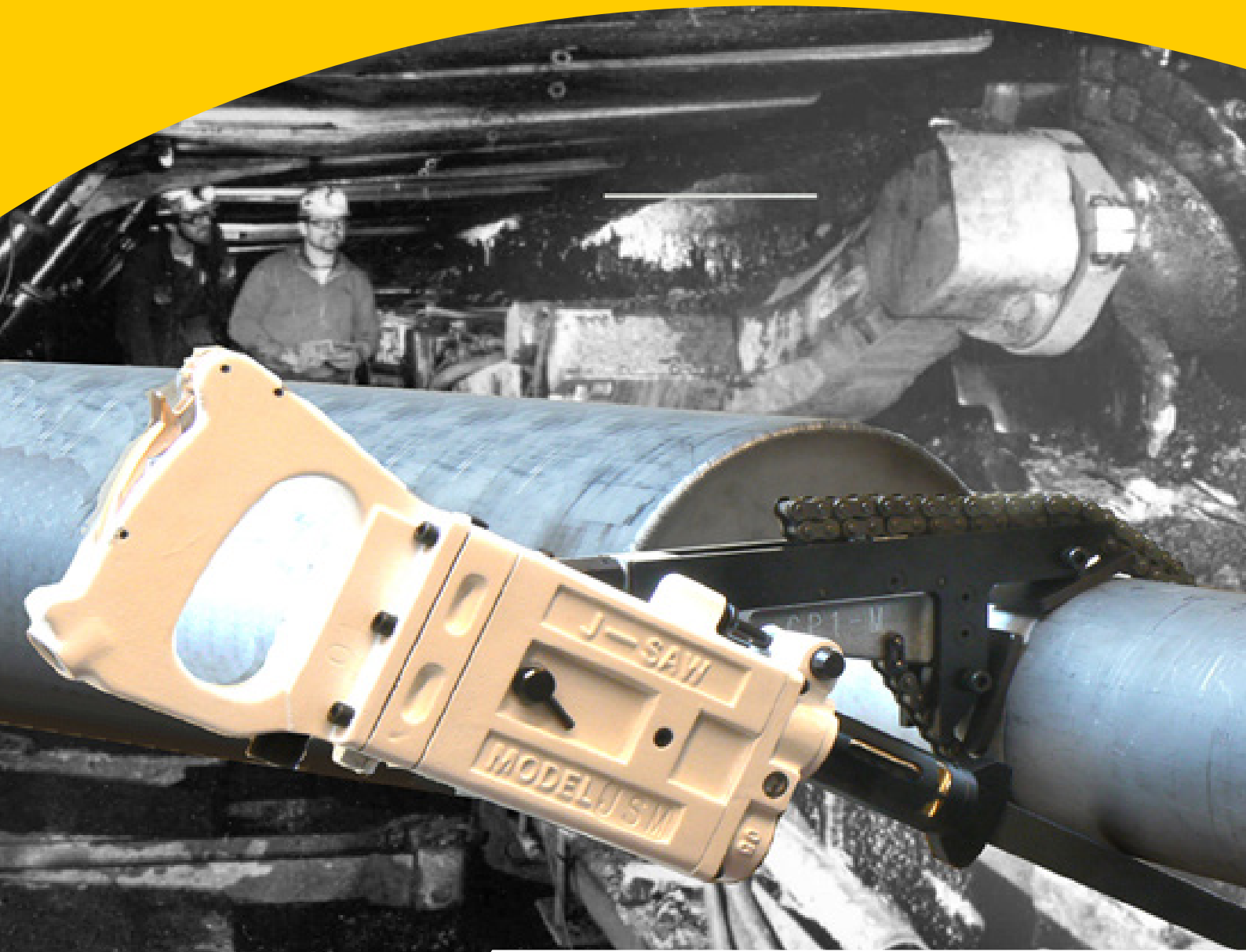




ATEX APPROVED



AIR SAWS FOR THE PROFESSIONAL

JSM



operating instructions

 **MADE IN
BRITAIN**

CENGAR AIR SAW MODEL JSM

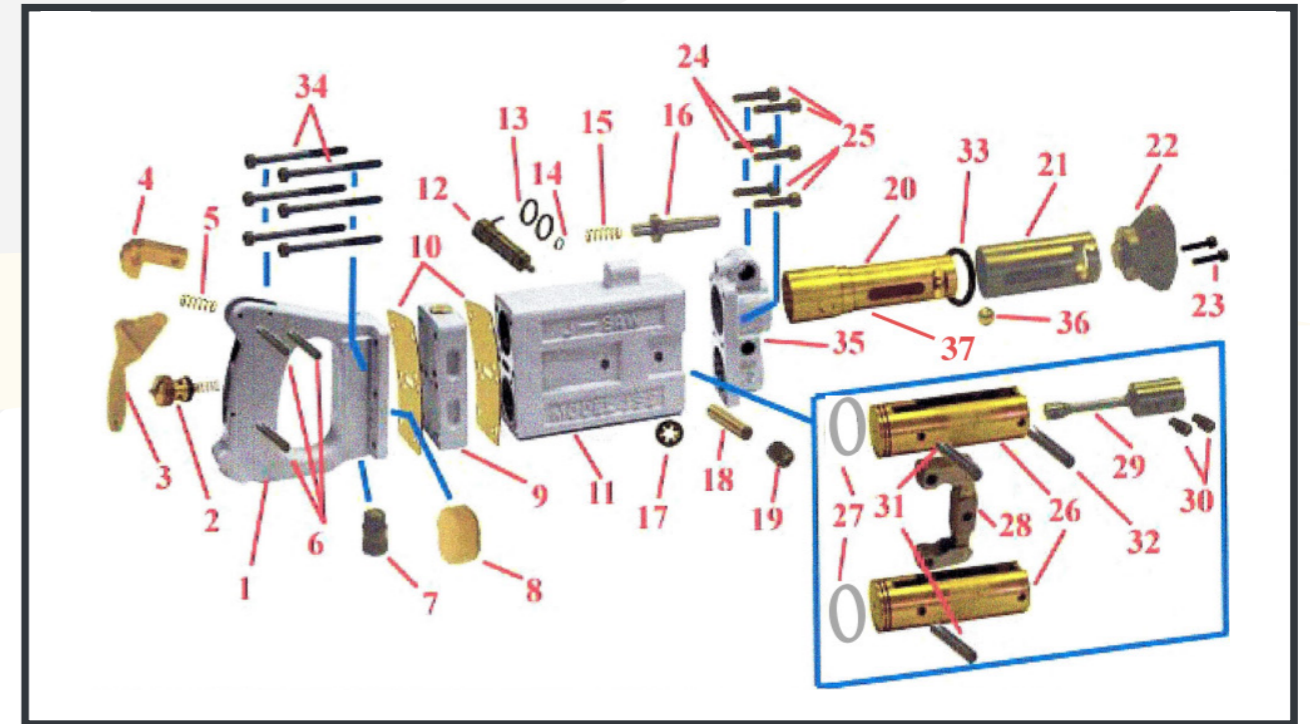
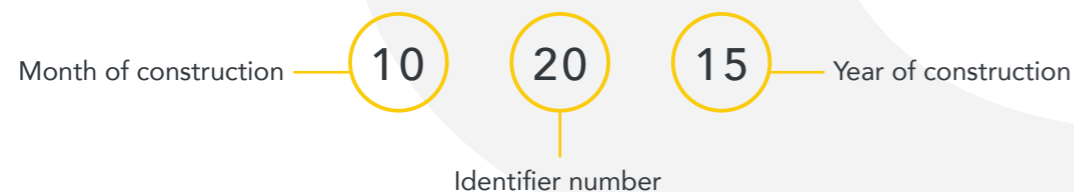
JSM EXPLODED VIEW

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 Consumption	0.168m ³ /minute
Air Pressure	5-6 Bar
Weight	6.9Kgs
Length	448mm
Height	141mm
Width	54mm
Vibration Level Averaged	1.38m/s ²
Sound Pressure Level	80.5db
Sound Power Level	89.9db
Atex Certification	 II 2G Ex h IIC T4 Gb  I M 2 Ex h I Mb

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

Serial number example:



ITEM	PART NO.	DESCRIPTION	NUMBER PER TOOL	ITEM	PART NO.	DESCRIPTION	NUMBER PER TOOL
1	8301M	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	54034	Screws	2
7	8306	Oil Plug & Seal	1	25	53034	Screws	4
8	8307F	Filter	1	26	8310	Piston	2
9	8308M	Valve Unit Complete	1	27	8310LS	Piston Seal	2
10	8307	Gasket	2	28	8312	Link to Pistons	1
11	8309ZM	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	54134	Screws – Handle	6
17	8314C	Regulator Retainer	1	35	8316M	Front End Bracket	1
18	55161	Centre Shaft	1	36	9332C	Détente Ball	1
19	8313	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	JSM

Is in conformity with the following relevant UK legislation:

Supply of Machinery (Safety) Regulations 2008 (as amended)	
UKEX Regulations	SI 2016:1107


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	⊕ II 2G Ex h IIC T4 Gb ⊕ IM 2 Ex h IMb
Approved Body (UKEX holding technical file)	Element Materials Technology Warwick Ltd Unit 1, Pendle Place, Skelmersdale, West Lancashire WN8 9PN, United Kingdom.
Identification Number	0891
Certificate No.	EMA21UKEX0011X
Authorised Signature	
Date	10/05/2021
Title of Signatory	Commercial Manager - Cengar Ltd. Springfield Works, Saddleworth Road, Greetland, Halifax HX4 8LZ
Special Conditions of Safe Use (on the certificate)	<ol style="list-style-type: none"> Suitably approved static dissipating or conductive air hose only to be attached to the equipment and terminated to the air supply. 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. The equipment shall be supplied from a clean air source in an area known to not contain a potentially explosive atmosphere. A filter must be fitted to the supply compressor inlet to prevent dust airflow within the equipment. To comply with UKEX certification regulations it is necessary to use Cengar branded Blades with Cengar Saws.

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	JSM

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.

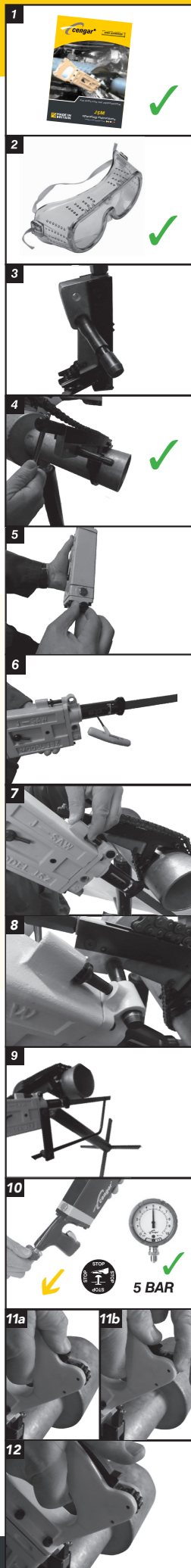
The following ignition hazards have been identified when the equipment is in use, hot surfaces, mechanical sparks, electrostatic charging. These are mitigated as the equipment was designed to meet the requirements of protection concept constructional safety "c".

ADDITIONAL INFORMATION

ATEX Coding	⊕ II 2G Ex h IIC T2 Gb ⊕ IM 2 Ex h IMb
Notified Body (Atex holding technical file)	Element Materials Technology Rotterdam B.V. Voorerf 18, 4824 GN Breda, Netherlands
Identification Number	2812
Certificate No.	EMT18ATEX 0032X
Authorised Signature	
Date	06/02/2020
Title of Signatory	Commercial Manager - Cengar Ltd. Springfield Works, Saddleworth Road, Greetland, Halifax HX4 8LZ
Special Conditions of Safe Use (on the certificate)	<ol style="list-style-type: none"> Suitably approved static dissipating or conductive air hose only to be attached to the equipment and terminated to the air supply. 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. The equipment shall be supplied from a clean air source in an area known to not contain a potentially explosive atmosphere. A filter must be fitted to the supply compressor inlet to prevent dust airflow within the equipment. To comply with ATEX certification regulations it is necessary to use Cengar branded Blades with Cengar Saws.

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

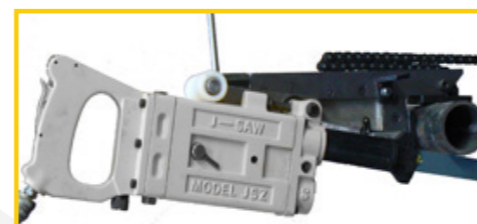
1. Always read the instructions.
2. Always wear safety glasses.
3. Fit the spigot (CP1/3) into the appropriate side of the clamp in the front of the two holes in the clamp body and tighten securing nut.
4. Position the clamp on the pipe with the chain around the pipe and tighten using the tommy bar (end of CP1/6). Ensure the clamp is perpendicular to the pipe for an accurate cut.
5. Invert machine and remove oil plug (8316). 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 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 saws.
 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 the operator 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 because 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 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.
Springfield Works,
Saddleworth Road,
Greetland, Halifax,
England HX4 8LZ

Tel: 01422 377904
Fax: 01422 377161
enquiries@cengar.com
www.cengar.com