

# CR300 CRUSHER INSTRUCTION MANUAL

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#### Introduction

Thank you for choosing Dragon Equipment. Our crushers are designed to give safe and reliable service if operated in accordance with the instructions which are provided as a guide to familiarise the operator with the controls, inspections, start-up, operating, and shutdown procedures.

The CR300 is designed to reduce sections or pieces of concrete, bricks or stones by a crushing action. The reduction output can be adjusted to produce three different sizes of product (hardcore).

#### Limitations

- Steel reinforced sections should be avoided.
- Wood (any type), cloth, rubber etc. must not be placed into the crusher's jaws.
- Be aware of these items when encased into the set concrete. They may cause the crushing action to stop when revealed during the crushing process.

#### **Delivery**

All Dragon Equipment CR300 machines have a full pre-delivery inspection before leaving the factory and are ready to use. Read and understand this instruction manual before attempting to operate or move the crusher. In particular, read pages 6-7 which contain important health and safety information and advice.

#### Important Health and Safety Information

Before using your new crusher, please take the time to read this manual. Failure to do so could result in:

- Personal injury.
- Equipment damage.
- Damage to property.
- Third-party injuries.

The machine must be properly operated and maintained to keep it in a safe and efficient functioning condition. Ensure that all controls are free of mud, grease, or other matter that might cause slips hazardous to the operator or other personnel. Report all malfunctions to those responsible for maintenance or site safety. Do not operate the equipment until corrected. Normal service or maintenance performed as required can prevent unexpected and unnecessary downtime. This handbook describes general

inspections, servicing and operation with the normal safety precautions required for normal operation.

This manual covers the operation and maintenance of the Dragon Equipment CR300. All information in this manual on how to operate the machine safely is based on the latest product information available at the time of purchase. All operators must be properly trained in safe working practices prior to operating this machine.

Dragon Equipment's policy of continuous improvement on the design of their products may result in modifications to the crushers or their accessories. Dragon Equipment reserves the right to make modifications at any time without notice and without obligation. This may result in minor discrepancies between this manual and the purchased product.



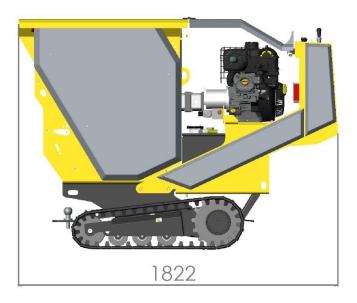
# Specifications

Width: 700mm
 Length: 1,822mm
 Height: 1,327mm
 Weight: 742 kg

Mouth: 306 x 180mm
Engine Power: 10kw (14 HP)
Feed height: 1,206mm

• Start: Electric and recoil

• Fuel: Petrol



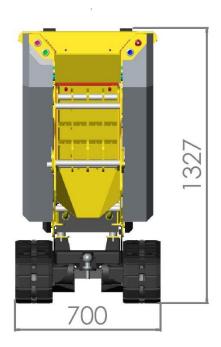


Figure 1: Crusher Dimensions

#### **Parts Locator**

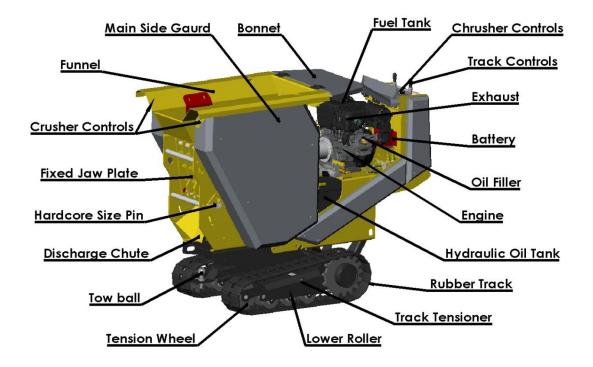


Figure 2: Parts Locator

The CW300 crusher has the following fixed guards for the protection of the operator, crusher and the environment:

- **Hydraulic Motors Guard**: Protects hydraulic motors from damage. Protects the user from injuries from heat, movement or rupture of the motor.
- **Drive Belt Guard**: Protects drive belt from damage and environment.
- **Engine Bonnet**: Protects engine from the environment.
- Hose Guards: Prevents damage to hoses.

These guards may be removed for maintenance only, however, the operator must ensure guards are in place prior to operation.

# Safe Working

#### Operator's Personal Protective Equipment (PPE)

- Suitable work gloves.
- Steel toe cap safety boots complying with ISO 20345:2011.
- Appropriate close-fitting clothing.
- Never wear loose clothing, rings, and watches etc. that might catch the controls.
- High-visibility clothing complying with ISO 20471:2013 if required.
- Face mask if appropriate.



#### **Basic Crushing Operation Safety**

The operator should be aware of the following points:

- Be aware when the crusher is processing material that is an awkward shape. The material can move in the funnel with great force.
- Never leave the crusher unattended when in operation or with the engine running.
- If an accident occurs, stop the machine, remove the key and call the emergency services immediately.

#### **General Safety Matters**

- Always ensure the engine has stopped and cooled down before making any adjustments, undertaking maintenance, refuelling or cleaning.
- Always ensure there is no risk of the machine moving during operation. Be aware of slope inclines and surface conditions.
- Always operate the crusher with the engine set to maximum speed when crushing.
- If there are any fluid leaks, cease operating the machine, stop the engine and repair before continuing.
- Take regular breaks, do not operate the machine when tired.
- Always keep hands, feet and clothing out of the feed opening, discharge and moving parts.
- Keep the discharge area clear from debris build-up.
- Ensure protective guards are in place before operating machine. Failure to do so may result in personal injury or loss of life.
- Always operate the crusher in a well-ventilated area to prevent the build-up of exhaust fumes.
- Ensure a fire extinguisher is available on site.
- Ensure a personal first aid kit is available and know its location.
- Do not operate the crusher in low light levels and be aware of changeable weather.
- Do not smoke when refuelling.
- Do not allow individuals to operate the machine who have not been trained.
- Do not climb onto the machine.
- Do not touch exposed wiring due to the risk of electric shock.
- Do not use the crusher inside buildings.

#### **Engine Noise**

Noise levels above 80dB (A) will be experienced at the working position. Prolonged exposure to loud noise may cause permanent hearing loss. All persons within close vicinity of the crusher must also wear ear protection (EN 352) at all times to prevent possible damage to hearing.

The average sound pressure level at one metre for the Vanguard 400 is:

3600FL	3600NL	3000FL	3000NL
[dBA]	[dBA]	[dBA]	[dBA]
96.8	93.8	94.4	90.4

While operating the crusher ensure that all individuals comply with the Control of Noise at Work Regulations 2005 (Noise Regulations 2005) to prevent or reduce risks to health and safety from exposure to noise at work.

#### Refuelling

- Follow standard Health and Safety practices.
- Stop the engine and allow to cool.
- Never smoke or permit naked flames nearby.
- Store fuel away from any ignition sources.
- Fuel storage containers must be approved, clearly display appropriate labels and have securely fitting caps.
- Use a funnel when refuelling and ensure fuel cap is refitted securely.
- Avoid skin contact with fuel. If it gets into eyes wash out with sterile water immediately and seek medical advice as soon as possible.
- Always clean up after any spillages and change clothes if appropriate.



# **Operating Instructions**

#### Storage and Parking

When parking the machine overnight, or for an extended period, the following procedure in addition to that given in 'Stopping the Engine' will help maintain it in good condition for subsequent use:

- Fill the fuel tank completely before parking the machine overnight or for extended periods to prevent condensation.
- Always park on level ground where possible. If it must be parked on a slope, position machine at right angles to the slope and block tracks securely.
- Remove the key to a place of safety.

**NOTE**: ENSURE THE EQUIPMENT CANNOT BE STARTED OR USED BY UNAUTHORISED OR UNTRAINED PERSONNEL

To recommission after storage the following checks must be carried out:

- Check all fluid levels.
- Check for fluid leaks.
- Check the tension of Rubber Tracks.
- Check operation of all controls.
- Check the action of all stop buttons.
- Check the action of all E-Stop buttons.

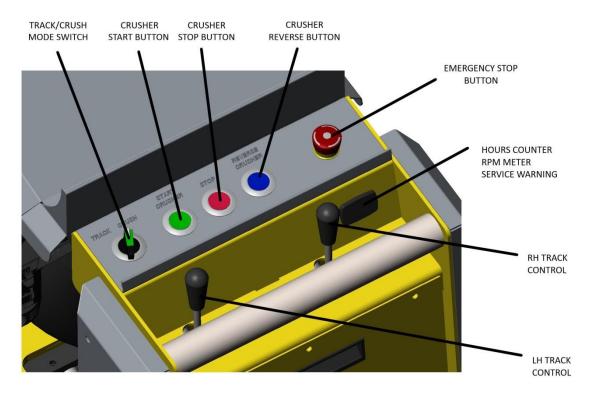


Figure 3: Summary of Switches, Controls and Gauges

#### Starting the Engine

#### **Checks Before Starting**

- Ensure the machine is located on firm flat ground.
- Check all guards are fitted.
- Carefully inspect tracks for cuts or other damage.
- Check the chute is clear and there are no obstructions.
- Visually check for fluid leaks.
- Ensure there is sufficient fuel in the fuel tank.



#### WARNING

Do not use or attempt to start the crusher without the protective guarding in place.

Failure to do so may result in personal injury or loss of life.

Do not place engine under full load at full speed immediately after starting. Always allow the engine to fully circulate lubricant and warm up gradually before operating at full speed and load.

- Ensure that all track levers are in the neutral position.
- Ensure E-Stop buttons are pulled out.
- Press Start Crusher green button once to turn the machine ON. It will then flash.
- Move the throttle control to 1/3 of total movement in direction of GREEN arrow.
- Pull choke control to the full choke position in direction of BLUE arrow.
- Insert key in the ignition and turn clockwise to start the engine.
- If the engine does not crank and the E-Stop LED is flashing the throttle lever is in the OFF position. Move the throttle lever to 1/3 position and repeat turning the key.
- Release the key as soon as the engine starts.
- NOTE: To extend the life of the starter, use only short starting cycles 5 seconds max.
- Push the choke control to the off position soon after starting. Normally with 1-2 seconds
- Allow the engine to warm up.

NOTE: After start crusher button is pressed the machine must be started within 20 seconds else it will switch OFF.

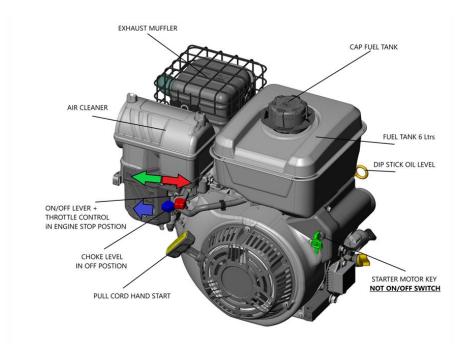


Figure 4: Engine Parts and Controls

#### Stopping the Engine

- Move throttle lever to the stop position in the direction of the RED arrow. This will turn off the fuel and stop the engine in one action.
- DO NOT USE THE E-STOP TO TURN ENGINE OFF.
- DO NOT TRY TO TURN THE KEY TO THE OFF POSITION, USE THROTTLE LEVER TO TURN OFF ENGINE; CRUSHER WILL TURN OFF AUTOMATICALLY AFTER 10 SECONDS.

For more detailed information refer to the Engine Owner's Manual.

#### **Emergency Stopping**

Should the machine need to be stopped in an emergency, push one of the red E-Stop buttons. These are located at each end of the machine and will stop the engine and disable the drive to the crusher jaws. The engine cannot be restarted until the activated E-Stop button is reset. Before resetting the E-Stop button inspect the machine to ensure it is safe to continue operation.

IF THE ENGINE IS NOT TO BE RESTARTED REMEMBER TO MOVE THE THROTTLE CONTROL TO OFF.

#### **Crawler Tracking Controls**

- Track/Crusher Mode switch (Showed in Tracking Mode position).
- Left-hand Track Lever.
- Right-hand Track Lever.
- E-Stop.



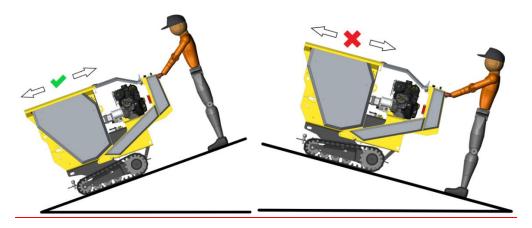
Figure 5: Tracking Controls

#### **Tracking**

The crusher is designed to operate in either crusher or crawler mode, but not both at the same time. To move the machine the following procedure must be followed:

- Select Track mode with the switch.
- Always face the direction the machine is travelling.
- Make sure the area around the machine is clear of personnel and obstructions before moving.
- Always operate straight up or down slopes. Side-hill operation can cause sideslip and possible rollover.
- Maximum side traverse angle on a slope is up to 20° (degrees), see Figure 6.
- To steer the machine, apply differing pressure to the control levers.
- Apply equal forward pressure on both levers to make the machine move forward in the desired direction at speed.
- The machine will turn by applying more or less pressure to either lever proportional to the lever movement.
- Apply equal pressure on both levers to the reverse position will make the machine move backwards at the desired speed.
- When negotiating slopes greater than 10 degrees or loading onto a trailer, track the crusher in reverse so the operator is above the crusher, see Figure 6.

# **Tracker Angle Limits**



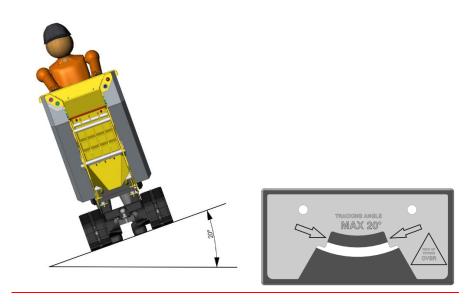


Figure 6: Tracking Angle Limits

#### **Crushing Controls**

- Track/Crusher Mode switch must be in CRUSH position (Showed in Crusher Mode position).
- Green Button with LED Light activates continuous forward movement by pressing once.
- Red Stop Button with LED Light
- Blue Button with LED Light activates momentary Reverse movement.
- When the button is released the reverse action stops.
- E-Stop with LED Light



Figure 7: Crushing Controls

#### Crushing

- Always position the machine on a level firm surface for loading and ensure the loading area is clear from slips and trips. When crushing the engine speed must be set to maximum by pulling the throttle level all the way to the LH side of the engine as shown in Figure 4.
- Ensure the funnel and jaw opening is free from objects not intended for crushing.
- Normal operation can be started by pressing the Green push button on either of the Control
  Panels. Before feeding material into the machine ensure it is running smoothly with no fluid
  leaks or unusual noises. Product up to the recommended size can then be fed into the
  machine. Place it onto the machine funnel and allow to drop into the jaw opening.
- Never place your hands or any part of your body into the crushing jaws with the jaw moving.
- The CR300 has an electronic monitoring device to ensure the engine is kept at the optimum operating speed known as No-Stress. A product that has a harder density will automatically be detected and select a different operation mode until the greater load has passed.
- A product that requires a greater breaking force than the Crusher can apply will automatically activate the Anti-Stall function and turn off the Jaw Movement so as not to stall the engine.
- Using the Blue Reverse and Green forward buttons to inch the jaws backwards and forwards will usually crush the product and normal processing can continue.
- When this action fails to clear product, with the jaws STOPPED remove the product and discard.

#### Adjustment of Crush Size

- Remove outer retaining outer bolt with a 17mm spanner.
- Leave inner bolt and arm fitted to the pin.
- Knock pin from opposite side to release and remove.
- Use retaining arm to turn pin back and forth to allow removal.
- The Lower hole is for Medium crush size. This is the most common size used.
- The Upper hole is for the Largest and Smallest crush size.
- Swing in or out the lower section of the fixed jaw to align the hole to the desired crush size.

#### **Troubleshooting**

- The machine will not track:
  - The mode selector is set to Crush Set switch to Track Mode.
  - Rock jammed into drive sprocket change direction and remove the loose rock.
- Crushing jaws will not start moving:
  - The mode selector is set to Track Set switch to Crusher Mode.
  - o Throttle control is set to a slow speed ensure the lever is fully across.
- Crushing jaws start and stop erratically:
  - Throttle control is set too slow speed ensure the lever is fully across.
- The engine will not crank to start:
  - o Ensure all E-Stops are in the off position. No LED red light showing.
- The engine will crank, but not start:
  - o Engine too hot Turn off choke as not required.
  - o Engine too cold Turn on choke as required.
  - O No fuel in the tank Check level and fill as required.
  - Wrong fuel has been poured into the tank Drain fuel from tank and carburettor and replace with the correct grade of petrol.

#### **Blockages**

Continuing to feed material into a blocked machine may cause damage to the machine, if the crusher becomes blocked, proceed as follows:

- Using the Blue button reverse the jaw action, which in most cases will shift the product and cause it to drop deeper into the jaws, so allowing the crushing process to continue.
- If this action does not have the desired effect. Stop the engine immediately.
- While wearing gloves remove the majority of the debris causing the blockage.
- Restart the engine and increase to full speed.
- Press the Green Start Button to continue, repeat the reverse action as required.
- Allow machine time to clear any excess material still remaining before you continue feeding.

#### Service Instructions

#### Safe Maintenance

While carrying out maintenance, handle the crusher's components with care to avoid injury, it is recommended that gloves are worn while carrying out servicing to minimise the risk of contact with hazardous materials. The major components of this machine are heavy and if required, lifting equipment should be used.

#### Safe Lifting and Securing of the Crusher

If the crusher cannot be driven onto its transport vehicle, a hoist can be used. The lifting points are designed to lift only the machine's weight. Always inspect the lifting bar prior to each use and do not use if damaged. Maximum lift weight is as indicated on the machine data plate.



#### WARNING

Always immobilise the machine before undertaking any maintenance work on the crusher by removing the ignition key and disconnecting the battery. Ensure the crusher is stable and on level ground before performing any maintenance.

The method of securing the crusher can vary depending on the type of carrier and position of tiedown points available on the carrier. It is recommended that correctly rated ratchet straps are used to secure the machine via the track frame or over the tracks to the carrier lashing points. This must be carried out by competent qualified personnel. Failure to secure the load correctly could result in chassis and/or undercarriage damage or loss of load.

#### **Lubrication and Servicing**

Lubrication is an essential part of preventive maintenance. It is important that the instructions regarding types of lubricants and the frequency of their application be followed to prolong the life of the machine. Periodic lubrication of moving parts helps prevent the possibility of mechanical failures. Thoroughly clean all fittings, caps, plugs etc., to prevent dirt from entering the system while servicing. Lubricants must be at operating temperatures when draining.

Do not operate any system unless oil level is within the operating range as indicated on the dipstick, level plug or sight glass. All change and service periods are recommendations based on average operating conditions. Lubricants showing evidence of excessive heat, oxidation or dirt should be changed more frequently to prevent these conditions. Lubricants change and service periods must be established on the basis of individual job conditions.

#### **Recommended Lubricants**

- Engine Vanguard ® Synthetic 15W-50
- Hydraulic VG32 Mineral Oil
- Grease Nipples Shell Gadus S3 V100 premium multi-purpose grease

#### **Spares**

Only fit genuine Dragon Equipment crusher spares. Failure to do so will result in the invalidation of the warranty and may result in damage to the crusher, personal injury or even loss of life.

#### Service Schedule

**NOTE**: Periodic lubrication of moving parts will help reduce the possibility of mechanical failures.

#### **Every 10 hours of operation (Daily Walk-Around Inspection)**

- Visually check the engine for damage, loose bolts and listen for any unusual noises.
- Inspect and remove any obstructions from the engine air cleaner inlet with the engine stopped.
- Check Engine Crankcase oil level and add oil as required. With the engine off and left to settle for a short time, the oil should be within the marked area on the dipstick.
- Grease each nipple on the LH side of the machine. Charge the pipe with one pump of the grease gun per day on each nipple. There are three off in a line.

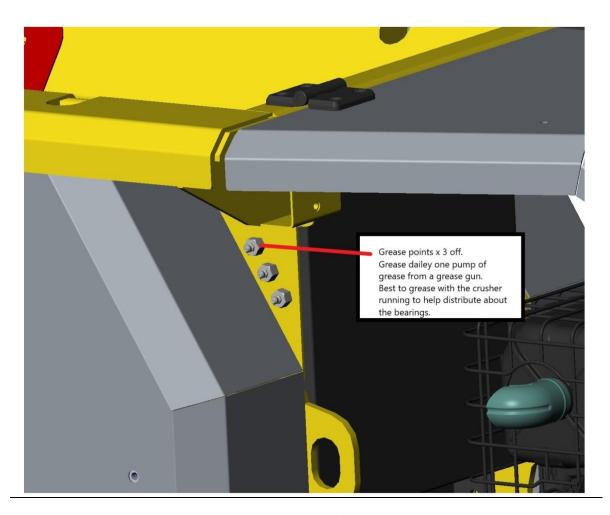


Figure 8: Grease Nipples Location

#### After the first 50 hours of operating new or rebuilt components

- Replace the hydraulic oil filter install new element each time do not reuse.
- Remove dipstick and filter element, the oil should be visible 100mm below the tube in the base of the filter housing.
- If oil low, fill through the filter housing until the level is 100mm below the tube in the base of the filter housing. **DO NOT OVERFILL**.
- Check engine crankcase and drain the oil and replace. Check the oil level, the oil should be just over the last thread at filler, do not overfill.

#### **Every 100 hours or operation (Monthly)**

- Engine drain the oil and replace, the oil level should be just over the last thread at filler
- General inspection check the entire unit for leaks, loose bolts and nuts or damaged parts.
   Examine the body, particularly the chassis, for cracks or broken welds. Repair where necessary.
- Engine air intake check air intake system for wear or damage to piping, loose clamps and leaks.
- Drain fuel and remove filter screen, replace with new filter screen and refill tank. If contaminated fuel is suspected frequency may need to be increased.

#### **Every 300 hours of operation**

• Drain fuel and replace the fuel filter.

#### Every 1,000 hours of operation (6 Months)

Replace hydraulic oil filter install new element each time do not reuse.

#### Every 2,000 hours of operation (Annually)

- Hydraulic Oil Tank Drain oil, remove and clean filter screen assemblies. Reinstall filter screens and refill the tank.
- Hydraulic Oil Filter Clean filter housing and install new element after a year or 2,000 hours of operation whichever comes first.

**NOTE**: Service air cleaners more often when operating under extremely dusty conditions. Do not wash the air cleaner element out with detergent, always replace with new.

#### **Check Fittings**

The Dragon Equipment CR300 is subject to large loads during its normal course of operation. Therefore, there is a possibility that nuts, bolts and other fastenings can lose their torque over time. It is vital that checks are made at regular intervals to ensure the security of these fasteners by using a torque wrench to the required torque (see below).

**NOTE:** Uncalibrated torque wrenches can be inaccurate by as much as 25%. It is therefore essential that a calibrated torque wrench is used to achieve the tightening torques.

	Size	Pitch	Torque lb-ft	Torque Nm
<b>General Bolt</b>	M8	Standard	20	27
<b>General Bolt</b>	M10	Standard	45	61
<b>General Bolt</b>	M12	Standard	65	88

#### Hazardous Materials and End of Machine Life

The following hazardous materials are within Dragon Equipment machines:

- Engine oil.
- Petrol.
- Grease.
- Hydraulic oil.

MATERIAL SAFETY DATA SHEETS FOR HAZARDOUS MATERIALS ARE AVAILABLE ON REQUEST. REFER TO THESE FOR FIRST AID AND FIRE PROTECTION MEASURES.

Recommended procedures and safety precautions must be followed for safe handling, removal and disposal of hazardous materials. Avoid direct contact and store in a cool, well-ventilated area away from sources of ignition, strong oxidising agents and strong acids. Ensure any spillages are dealt with immediately and in accordance with the local/regional law by preventing any ground or drainage system contamination.

#### **End of Machine Life**

At the end of the machine's life, follow approved local waste and disposal methods for recycling materials, while ensuring you adhere to all applicable local/regional Health and Safety and Environmental laws. If disassembling the machine structure, refer to the maintenance instructions while being aware of any parts with mechanical pressure or tension applied. It is recommended that items are separated into material groups where possible and recycled using appropriate local agencies. Once decommissioned, supply the serial number to Dragon Equipment to close the machine's records.

#### **Battery Safety Information**

The rechargeable Li-lon polymer battery located under the engine bonnet is a sealed unit which is not hazardous when used according to the recommendations of the manufacturer. Under normal conditions of use, the solid electrode materials and Gel electrolyte they contain are non-reactive provided the battery integrity is maintained.

#### Safety advice

- Keep out of reach from children.
- Keep away from moisture.
- Do not breathe dust.
- In case of contact with eyes, rinse immediately with plenty of water for 15 minutes and seek medical attention.
- Wear safety goggles or glasses with side shields if handling a leaking or ruptured battery.
- Use Viton rubber gloves and rubber apron if handling a leaking or ruptured battery.
- Skin Contact: Washing immediately with water and soap.
- Inhalation of Vented Gas: Remove to fresh air. Get medical attention.
- Ingestion: Get medical attention immediately.

#### **Fire and Explosion Data**

Extinguishing Media: Dry chemicals, water.

Fire-Fighting Procedures: Use self-contained breathing apparatus and protective clothing.

Unusual Fire and Explosion Hazards: Toxic gases (HF, PF6) will be formed if cells or battery are involved in a fire. Cells or battery may flame or leak potentially hazardous organic vapours if exposed to excessive heat, fire or over-voltage conditions. Damaged or opened cells or batteries may result in rapid heat and the release of flammable vapours.

#### Storage and Handling / Use

- Do not store batteries in a manner that allow s terminals to short circuit.
- Do not place batteries near heating sources, nor exposed to direct sunlight for long periods. Elevated temperatures can result in reduced battery service life.
- Charging Battery. Use only approved chargers and procedures. Improperly charging a cell or battery may cause the cell or battery to flame or damage.
- Battery Disassembly. Never disassemble a battery. Should a battery unintentionally be crushed, thus releasing its contents, rubber gloves must be used to handle all battery components. Avoid inhalation of any vapours that may be emitted.
- Battery Short Circuit. Do not short-circuit a battery. A short circuit can result in over-heating of the terminals and provide an ignition source. More than a momentary short circuit will generally reduce the cell or battery service life and can lead to ignition of surrounding materials or materials within the cell or battery if the seal integrity is damaged. Extended short-circuiting creates a high temperature in the cell and at the terminals. Physical contact with high temperatures can cause skin burns. In addition, extended short-circuit may cause the cell or battery to ignite.
- Avoid reversing cell polarity within a battery assembly. Reversing cell polarity may cause the cell or battery to flame or to emit gases.

#### **Tension Drive Belts**

**NOTE**: Belt failures due to lack of correct tensioning will not be covered under your Dragon Equipment warranty.

- 1. Remove the side panel.
- 2. Loosen the four bolts ("A") retaining the tensioner with a 17 mm spanner so that pulley/motor mount plate slides freely.
- 3. Using a 17 mm spanner adjust the tensioner bolt ("B") to draw down the mounting plate until correct belt tension is achieved.
- 4. Re-tighten the four bolts retaining the pulley/motor mount plate.
- 5. Run machine and test, recheck belt tension.

**NOTE**: Incorrectly tensioned drive belts will cause poor performance and excess belt, pulley and motor wear.

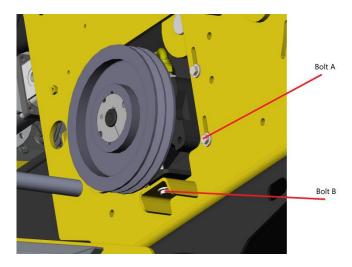


Figure 9: Drive Belt Tensioning

#### **Engine Servicing**

All engine servicing must be performed in accordance with the Engine Manufacturer's Handbook provided with the machine.

Failure to adhere to this may invalidate the warranty and/or shorten engine life.

#### **Hydraulic Servicing**

#### **Hose Check**

All the hydraulic hoses should be regularly inspected for chafing and leaks. The hydraulic system is pressurized to 150 Bar (2175 PSI) and the hoses must be kept in good condition. If any hydraulic components are changed, new seals should be installed during reassembly. Fittings should then be retightened.

#### **Changing Hydraulic Oil and Filter**

The hydraulic oil filler cap should only be used for topping up.

- 1. Remove the drain plug and allow to drain into a suitable container.
- 2. Undo filter cap and partially remove the filter and allow to drain for 5 minutes.
- 3. Remove filter once clear of hydraulic oil.
- 4. Refit drain plug.
- 5. Refill with VG 32 hydraulic oil until the sight glass shows 1/3 full (about 23 litres).
- 6. Install a new filter element and refit filter cap to the filter housing. Ensuring not to over tighten the three bolts.

**NOTE**: Use plastic gloves to keep oil off skin and dispose of the used oil and filter in an ecologically sound way.

### Warranty Statement

Each machine supplied by Dragon Equipment Ltd is accompanied by a registration form that must be completed in full and returned to:

Sales Manager (email: sales@dragon-equipment.co.uk)

Failure to register your machine may invalidate the manufacturer's warranty.

#### Liability

The warranty period begins when the product is delivered to the first purchaser. Only genuine parts may be used to carry out repairs. Failure to use only genuine parts may invalidate the Manufacturer's Warranty.

Dragon Equipment Ltd will not be held responsible if:

- The machine has been used to perform tasks that demand outside of its design and strength limitations.
- The machine has undergone modifications not approved by Dragon Equipment Ltd.
- Conditions of use have been abnormal.
- Normal maintenance as set out and detailed by Dragon Equipment Ltd has not been adhered to.

#### Limitations

- Normal maintenance and servicing and any materials used to carry out routine servicing are not covered by this warranty.
- Service items including lubricants, coolants, filters, spark plugs, drive belts, leaks (oil, and air), IN ADDITION: paintwork, wear parts and tracks.
- The warranty liability of Dragon Equipment Ltd is limited to diagnosis, repair or replacement of the defective part depending on the product terms and conditions.
- Dragon Equipment Ltd shall be under no liability whatever to the customer for any indirect loss and/or expense (including loss of profit) suffered by the customer arising out of a breach by Dragon Equipment Ltd of this contract.

#### **Warranty Audits and Surveys**

Dragon Equipment Ltd reserves the right to carry out audits and inspections in relation to any reimbursed or outstanding warranty claims in order to determine that all relevant details and information is correct.

#### **Service Bulletins**

Dragon Equipment Ltd may occasionally issue service bulletins to keep the customer up to date as to any improvements or changes that may take place on the complete assembly or component parts.

#### **Warranty Terms**

One year or 1000 hours whichever occurs first from date of installation.

#### **Warranty Claim Submission Procedures**

Claims must be reported accurately along with all relevant details given, as follows:

- OWNERS NAME AND ADDRESS: to include site location, if different.
- MACHINE TYPE:
- DATE OF FAILURE:
- INSTALLATION DATE: The actual date of installation, not the invoice date.
- SERIAL NUMBER: Serial number of the unit.
- ENGINE NUMBER: Serial number of the engine.
- HOURS USED: State hours used on hour clock.
- DETAILS OF FAILURE: Give a full report on the failure.

Accurate information is vital in order to determine the following:

- That the failure is to be covered under the terms and conditions of the warranty. If this is the case, then the costs will be covered by Dragon Equipment Ltd.
- If the failure is determined to be of a non-warrantable nature, further authorisation to continue will be sought before any rectification work takes place.

The information above must be provided even if your warranty claim is a "parts only" claim. The reported faulty/defective part must be immediately returned to Dragon Equipment Ltd to enable full inspection of the parts to be carried out. If the failure is covered under the terms and conditions of warranty a credit note will be despatched to the customer. If the failure is deemed to be of a non-warrantable nature, then an invoice will be raised accordingly.

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# **Declaration of Conformity**

# EC Declaration of Conformity ( )

We

**Dragon Equipment Limited** 

Of

East Cottage Fen Street Bury ST Edmunds IP30 0RW

This declaration of conformity is issued under the sole responsibility of the manufacturer and includes the following models:

Dragon Equipment CR300 Crusher

The object of the declaration described above is in conformity with the relevant Community harmonisation legislation:

- Machinery Directive 2006/42/EC
- Electromagnetic Compatibility Directive 2014/30/EU
- Noise Emission in the Environment by Equipment for use Outdoors 2000/14/EC

Signed for and on behalf of Dragon Equipment Limited by:

Mr Jeff Haines (Managing Director)

Dated: 03 February 2020

#### **Identification Plate**

Information regarding the machine model, code, chassis serial number, power and machine weight can be found on the serial number plate. This plate is located on the rear left-hand side of the machine and the serial number should always be referenced in any correspondence with the dealer or manufacturer.

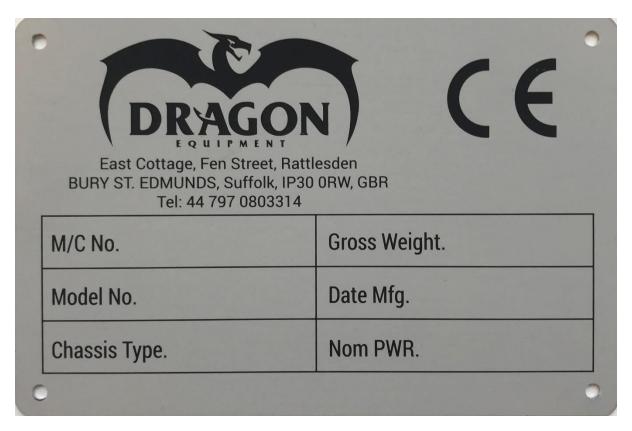


Figure 10: Identification Plate

# Circuit Diagram

