



GETTING THE MOST OUT OF YOUR TRENCHER

Long gone are the days of trenching by hand! The laborious task of digging a trench has been transformed since the advent of the trencher attachment. Attachments on the market today are numerous, covering a range of applications, with varying features, so understanding how to not only choose the right trenching attachment, but how to use it to maximum effect is critical. Being clear on best practice; eliminates issues, risks, and maximizes the effectiveness of the trenching operation.

Not doing the “groundwork” – pun intended (!), can be costly and so It’s vital to understand all the variable factors before undertaking any trenching works; the digging conditions, potential safety hazards and the relationship between your trencher attachment and parent machine are fundamental to getting the job done with maximum efficiency.

The Right Tool For The Job!

Whether you are trenching for construction, cable laying, drainage systems, farming or hedge and tree planting, understanding all aspects of what is required is key to success. Most manufacturers supply trenching attachments with a number of specifications that can be customized to suit the application needs. Many factors come into play; some are discussed here:

Depth and Width

Determining the depth and width of the trench required is the first step in sizing the trencher attachment. Trencher attachments often come with the ability to do a range of different depths.

Getting the depth right for the trench in question is of a paramount importance, so a feature such as a “precision depth control skid plate” will ensure this. Using a precision depth control skid plate, and ensuring its flush with the ground level, will ensure the required and accurate depth for the whole trenching job.

Most manufacturers supply trenching attachments that range in width from approximately 150mm to 350mm. This is a good stage to remind the reader that this article is discussing trenching **attachments**, for trenching of significant depth and width, then a designated trenching machine should be considered.

Ground Condition

It is crucial to understand the ground conditions of the area you will be trenching. Matching the right trencher to the ground condition in question is essential to keeping costs down, preventing technical problems, guaranteeing maximum productivity and the ability to efficiently move through the ground. Using a machine too small for the workload will limit production and cause unnecessary wear on the attachment. A trencher too large for a job may not be able to operate in limited space.

Which Teeth?

Understanding the ground condition will also help specify the type of teeth, ground conditions can vary from soft soil or sand, through to asphalt, or sticky mud with small rocks. Many manufacturers give multiple options on choice of teeth, usually tungsten for tougher ground conditions and earth teeth for softer ground, some offer the added feature of interspersing the earth teeth with “paddle shaped teeth” which helps to remove spoil from the trench, giving the tidy and clean finished expected by the end user.

Parent Machines

The trencher attachment must be correctly matched to parent machine. It is fundamental to match the auxiliary hydraulic flow of machine to the trencher attachment; this will result in the most efficient trenching for the ground conditions at hand.

Some manufacturers supply attachments that can be used on both skid steers and excavators with no amending of the trencher unit, giving a flexible solution for the operator.

Although manufacturers have made the attachment process straight forward for a single operator, operator instructions should always be followed for attaching the trencher attachment to the parent machine.

Motor

The motor needs to be configured correctly, balancing the speed and the torque. If too much speed, the chain will flail and spoil will spray around the area, with too much torque, the chain will not move quickly enough, leaving spoil in the bottom of the trench.

A Clean Trench

A neat feature is the trench clearer or scooper that sits on the end of the danger bar. Once the boom is lowered, the scooper is dropped into the trench to scoop away the spoil, giving a definite finish.

Look out for Hazards!

Before commencing the trenching work, undertake all health and safety checks, site surveys, hazard recognition and risk assessments on the site in question. Follow all safety Precautions outlined in the operations manual of the attachment and parent machine. When purchasing a trencher from a reputable manufacturer you will always be supplied with a comprehensive operator's manual. Check the equipment (trencher attachment and parent machine), ensuring that all parts and systems are in good operational working order and not showing any times of wear.

If in doubt, detection equipment and professional advice should always be considered before carrying out any work.

Let the trenching begin

If all pre-trenching aspects have been considered and carefully put in place, the trencher will cut at the optimum angle and maintain the correct depth. Pulling the trench should be as easy as creeping the machine in reverse at a steady pace. When trenching, it is important to have the trencher chain properly adjusted. If the chain is too loose or too tight will lead to inefficient trenching. This is critical to the efficiency and effectiveness of the trenching. As the operator tracks back its crucial that the trencher is held at a constant angle, keeping the skid plate flush to the ground.

Once this is all considered, the trenching job should be accurate, smooth and efficient. Once finished, its important the attachment has a mount that keeps the trencher stable, allowing for easy pick up when starting again.

Equipment Maintenance

Long term trencher performance is dependent on how well it is maintained, a trencher must be in good operating condition when it arrives at the job location and therefore requires regular daily maintenance that should be performed after a day's work is finished or before the machine is operated again.

Primary wear parts on any chain-type trencher are digging teeth, digging chain and sprockets. Operating a trencher with worn or damaged teeth, chain or sprockets reduces digging efficiency and places extra stress on the machine, causing unnecessary wear and possible damage to the machine itself.

All fluids and filters should be changed at prescribed intervals, more frequently when operating in adverse or dusty conditions. Lubricate all service points and maintain the hydraulic system at manufacturer-prescribed intervals. Adjust chain or belt drives as necessary and replace all guards and shields after maintenance procedures are complete.

To conclude

There are many variables to consider when purchasing or renting a trencher, to ensure the most efficient performance. It's a complex piece of equipment. Used right, with the right specification for the job in hand it will do the job you need it to do perfectly. If you scope the wrong trencher, you'll have nothing but problems and an inefficient cumbersome and painful job. There are many specialist suppliers of attachments in today's market, the key is working with one that understands your needs and can support you technically to get the job done.