

Springstarter

Easy hand starting with Kineteco Spring Starters

Kineteco

The leading manufacturer of hand wound mechanical starter motors for diesel engines





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EASY DIESEL HAND STARTING



Kineteco is the leading manufacturer of hand wound, mechanical starter motors. These replace the electric starter motor and allow a diesel engine to be started easily and safely by hand, without a battery or alternator.

Our traditional Simms spring starters are used all over the world in many applications including ships' lifeboats, irrigation pumps, black start generators, mining vehicles and fire pumps to name but a few.

NEW RANGES

Now we have introduced the new generation of Spring Starters, bringing easy, low-cost, lightweight and safe hand starting. These uniquely combine the best of appropriate and high technology. Now you can fire up a big diesel engine by hand more easily than starting a lawnmower.

We have all suffered starting problems. What do you do if your battery has been stolen? What happens if the machine has been left idle too long or damp has got into the electrical system? How can you get your boat engine running when you are marooned in the middle of the ocean with dead electrics?

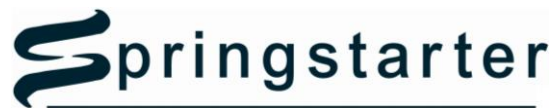


SIMPLE

Spring starters combine the dependability of hand winding with a powerful spring mechanism.

Operation is simple, and with a spring starter fitted to your engine it only takes a few moments to kick your diesel into life. Hand starting is no longer an all or nothing effort, because the winding is separated from the starting. Just wind the starter's spring steadily until enough energy is stored; when this tripped the engine is turned over fast enough to start. There is no sharp pull or yanking, no special skill. Such smooth steady starting, even powering up a big generator is easy.





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SURE & RELIABLE

There are many reasons to fit spring starters:

- On irrigation pumps and boats the combination of water and electrics is a sure recipe for disaster
- On construction sites batteries frequently 'disappear' from equipment or fail because of chronic vibration
- In a mine or grain mill, dust can get into switches
- In a lifeboat or oil rig you need a dependable back-up starter that is safe to use and needs only limited manpower when all else fails
- Unaffected by long shutdowns, damp or cold, spring starters are ideal for equipment left in storage for long periods of time; from emergency and utility stand-by to grass cutting and maintenance equipment
- In the remotest of locations sure starting is equally about ease of operation and sustainability in the most diverse conditions
- Equipment for disaster relief, military and strategic use needs to be lightweight and ready for use at a moment's notice – features which often only a spring starter can provide



EASY START



Kineteco's starters are very simple and affordable, making hand starting the smart option on a wide range of machinery. Fitting is easy. Just remove the electric starter and its connectors and bolt on the spring starter.




Perfect as an emergency back up in a boat's locker, in case of trouble with the battery, starter, alternator or wiring. Excellent as a primary starter for a whole host of uses where you never want to be faced with a dead engine again.

For further information contact us through www.springstarter.com or at the address below

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PRODUCT RANGE

Model	Description	Use
	Simms SS/HSS Traditional all-steel spring starter with disc springs on a ball screw wound by a detachable handle, set and tripped by hand. Formerly made by Lucas/CAV	Heavy duty starter commonly specified for mining, oil rig and merchant marine use. Used on a wide range of engines up to 8L or more, with a terrific track record
	Z-drives SZ/SZH Unique Z-drive spring starters, steel or composite bodied, cord or crank wound. Variable gearing and positioning of body. Range of power packs - the largest starts 15L engines	When there is no room for a standard starter or it is not powerful enough, use the Z-drive. A wide range of configurations to start more engines than ever before
	Simms SMS/SMR Short steel bodied starter with Simms nose piece, energized by a power spring, crank wound. Best value steel starter	Shorter, lower price alternative to most Simms SS and SR starters. For tough applications where price or length is a problem



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Simms Traditional S Series Spring Starters



- The original spring starter
- Unique 5 decades track record of reliability
- Rugged steel construction
- High torque disc spring power
- For a wide range of engines up to 9 litres displacement
- Manual set and trip mechanism
- Crank wound with detachable handle

The Simms Starter has a well-earned reputation for quality and durability. Originally made by Lucas/CAV, it is still manufactured by Kineteco to the exacting standards that made it a classic.

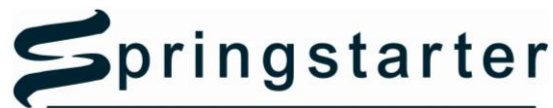
The starter uses a set of powerful disc springs that are compressed by a nut on a ball-screw as the winding handle is turned. The pinion is pre-engaged, and when the pawl is tripped the shaft is released to transmit the power of the spring into the engine. This is an expensive mechanism to build, but delivers high torque and long life.

Tens of thousands of these heavy duty starters have been sold worldwide, and after 50 years of production they are still doing what they do best – starting on demand. They are used on a huge variety of engines, from 700cc single cylinders to 9 litre sixes, in all types of conditions and for a wide range of applications.

One of the more common is on a ship's black start generator, symbolising the dependability of the Simms Starter. It's no good waiting for a jump-start when the vessel is being blown towards the rocks. When all else has failed, the ship must be able to start its generator, to get systems up and running again. It takes only a few minutes to bolt the Simms starter in place of the standard electric starter, wind it up and fire up the engine.

Simms Spring Starters are frequently specified for mining, oil rig and merchant marine use. After many years of production, fittings have been developed for a wide range of engines from many manufacturers, and new ones are constantly being developed. So if your engine is not listed, please ask.

Model options include standard (SS) or reverse (SR) rotation, with marine, heavy duty or hazardous environment build, so the Simms spring starter can be configured to meet customer's exact requirements.

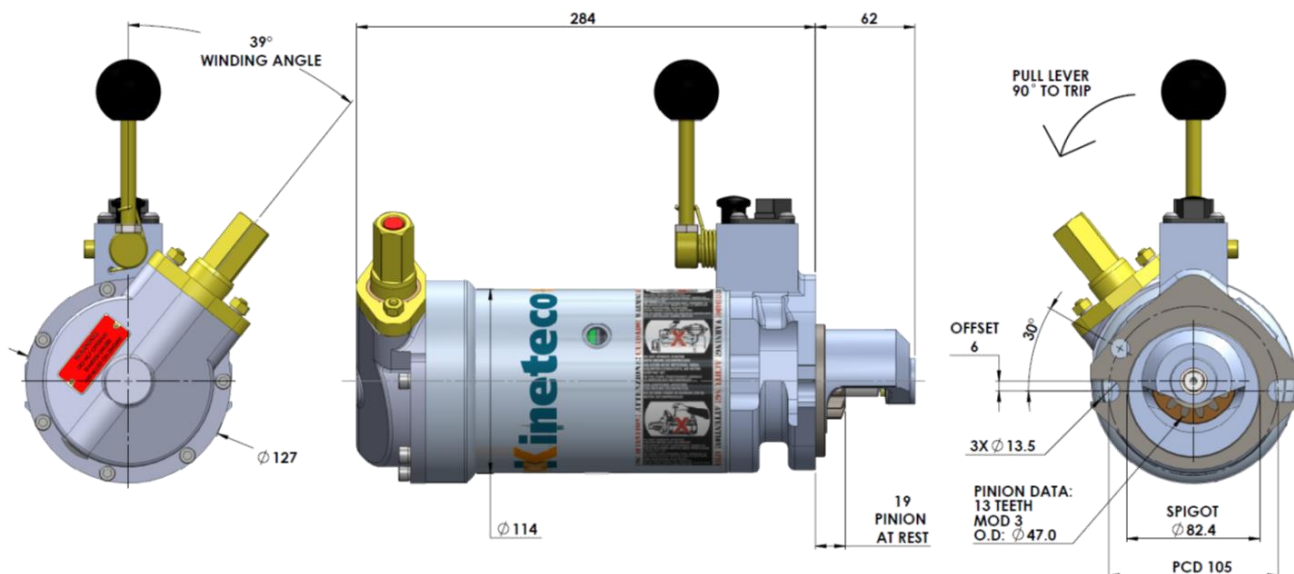


Easy hand starting with Kineteco Spring Starters

Specifications – S Series

Rotation of Starter	Clockwise when viewed on the pinion
Engine Displacement	Max. 6 cylinders, up to 1.25 litres per cylinder
Torque (Range)	95 Nm
No. of Output Turns	3
Output Energy	Nom. 1000 Joules
Cold Starting	To 0°C, some engines require starting aids at lower temperatures.
Maximum Winding Load	61 Nm Torque
To Wind Fully	10 turns of the handle
Mounting Flange Type	SAE 1, SAE 2/3, SAE 4/5, Ford
Pinion	10/12, 8/10, 6/8 FS, Mod 2.5, 3
Winding Handle Position	Variable in 8.5° increments
Weight	19kgs
Shipping Dimensions	40 x 22 x 27 cms
Standard Equipment	Winding handle and handbook
OPTIONS	DETAILS AS ABOVE WITH THE FOLLOWING VARIATIONS
Reverse Rotation Model	SR: Rotation anti-clockwise when viewed on the pinion
Marinised Model	SSM/SRM: Special seals for marine applications
High Torque Model	HSS/HSR: 126 Nm torque for engine displacement to 1.25 litres per cylinder, maximum winding handle load 81Nm, 12 turns of the handle to wind fully.
Type Approved Model	FSSM, FHSSM, FSRM, FHSRM: Special seals and finishes for marine and flameproof applications
Dual Start Safe Model	Our new 'E-Pack' add-on for electric starter isolation in dual-start installations

Typical Dimensions





Easy hand starting with Kineteco Spring Starters

Simms SM Series - Starters for Smaller Engines



- Short length to fit smaller engines where space is restricted
- Smooth action power spring for easy starting action
- Low price
- Uses standard Simms nosepieces with manual engagement and trip mechanism
- Fits anywhere that a Simms SS starter will go
- Standard Simms crank wind with detachable handle
- Variable wind and unwind facility
- Heavy duty construction
- Reverse rotation, marine, lightweight and dual-start safe options available

The new SM series spring starters are ideal for smaller engines working in tough conditions. Designed for engines from 0.6 litres to 6 litres displacement, they provide the perfect partner for easy and safe hand starting.

Being based around the long established Simms range of starters, the SM series have the advantage of using many proven Simms components including nosepiece, winding, trip and pinion assemblies. It is also dimensionally similar but shorter, so that it is compatible with many Simms SS and SR series applications. This means that models can already be supplied for a wide range of engines from Bukh to Wisconsin.

With a manual engage and trip mechanism and detachable crank wind, the operator can choose exactly how the starter operates, down to using it to turn the engine over slowly for inspection.

The SM version is ideal for use on black start generators, pumps and compressors.

Like all our spring starters, the SM series bolts directly into the standard starter pocket on the engine. Given the correct engine configuration, all of the electrics can be dispensed with. Fitting takes a matter of minutes, and operation of the starter does not need special skill or strength. Unlike a directly hand cranked engine, you can take your time to wind the starter and trip it when you are ready.

There is no danger of kickback or back strain from wrestling with a reluctant engine, making the spring starter much safer and easier to use.

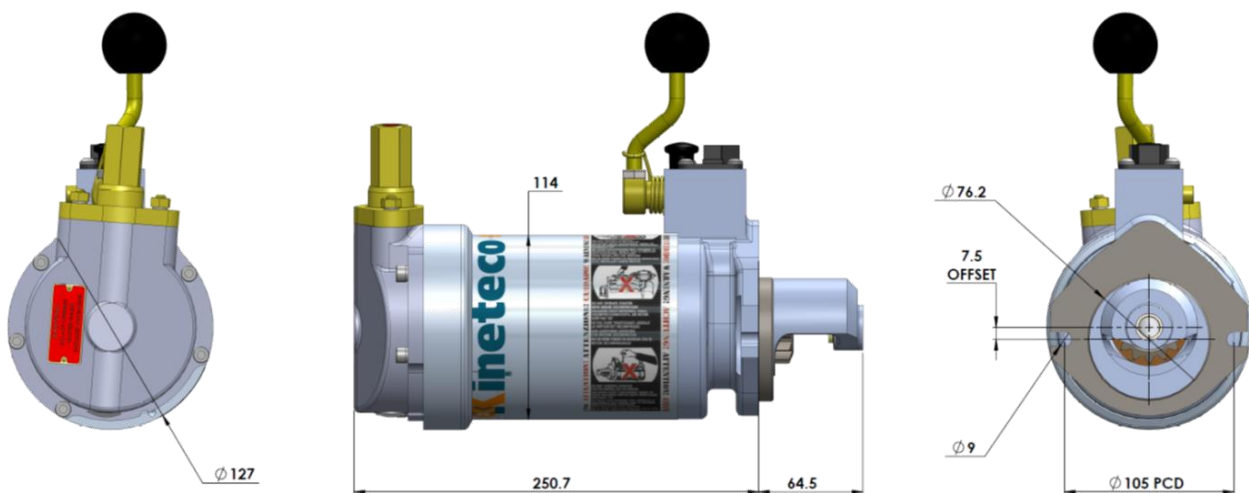


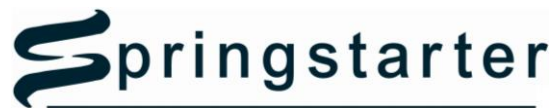
Easy hand starting with Kineteco Spring Starters

Specifications – SM Series

Rotation of Starter	Clockwise when viewed on the pinion
Engine Displacement	Max. 6 cylinders, up to 1 litres per cylinder
Torque (Range)	36 Nm
No. of Output Turns	7.5 maximum
Output Energy	Nom. 950 Joules
Cold Starting	To 0°C, some engines require starting aids at lower temperatures.
Maximum Winding Load	23 Nm Torque
To Wind Fully	18 turns of the handle
Mounting Flange Type	SAE 1, SAE 2/3, SAE 4/5, Ford
Pinion	10/12, 8/10, 6/8 FS, Mod 2.5, 3
Winding Handle Position	Variable in 8.5° increments
Weight	15 Kgs
Shipping Dimensions	40 x 22 x 27 cms
Standard Equipment	Winding handle and handbook
OPTIONS	DETAILS AS ABOVE WITH THE FOLLOWING VARIATIONS
Reverse Rotation Model	SMR: Rotation anti-clockwise when viewed on the pinion
Lightweight Model	Special order
Dual Start Safe Model	Our new 'E-Pack' add-on for electric starter isolation in dual-start installations

Typical Dimensions





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Z-Drive Series Spring Starters



- Kineteco's range of Z-drive spring starters is unique
- The first spring starters to have a gearbox built in between the power pack and the nosepiece
- The flanges of the gearbox are arranged so that the nosepiece and power pack can be rotated separately
- This means that the starter can be positioned in many different ways, depending on the application requirements

The main body of the starter can be offset away from the engine or other obstruction. The Z-drive can then be configured to fit the many engines where there is no room for a standard Spring Starter. Alternatively, it allows us to fit a larger power pack than previously, either to start larger engines or to allow starting of current engines at lower temperatures than previously available.

Different ratios can be provided in the gearbox. These transform the output characteristics of the starter, going from high torque/few power turns to low torque/many power turns. This allows much greater flexibility to tune the spring starter to the engine's needs. These vary widely, even with similar capacity engines, because of the many different configurations available. Typically these range from a lumpy, single cylinder engine with a heavy flywheel to a much more evenly cranking multi-cylinder one with a far lighter flywheel. The best starting performance may be achieved with equally different starter characteristics. In addition, some applications may require a special starter configuration due to parasitic loads from ancillaries on the engine at start-up. The Z-Drive range includes the standard duty SZ series and the heavy duty Simms SZH starters for engines to over 2.5 litres/cylinder.

Simms SZ



Simms High Power SZH2





Easy hand starting with Kineteco Spring Starters

Simms SZ Series - Z-Drive Spring Starters



- Rugged steel construction
- Z-drive to fit smaller engines with restricted block clearance
- Smooth action power spring for easy starting action
- Standard Simms nosepieces with manual engagement and trip mechanism
- Standard Simms crank wind with detachable handle
- Variable wind and unwind facility
- Reverse rotation, marine and dual-start safe options available

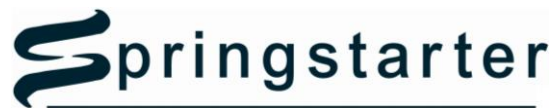
The new SZ series spring starters are ideal where engine clearance or low flywheel inertia is a problem. Designed for engines from 0.6 litres to 6 litres displacement, they provide the perfect partner for easy and safe hand starting.

Modern engines tend to be smaller, and this can present problems when fitting spring starters. With its flexible Z-drive gearbox, the SZ series can be configured to give greater engine clearance. The gearing can also be adjusted to counter the effect of a light flywheel. The end result is a spring starter ideally suited to these engines.

Being based around the long established Simms range of starters, the SZ series starters have the advantage of using many proven Simms components including nosepiece, winding, trip and pinion assemblies. With their robust construction, they are suitable for a wide range of applications in difficult environments. These include pumps, generators, compressors and mining equipment.

With a manual engage and trip mechanism and detachable crank wind, the operator can choose exactly how the starter operates, down to using it to turn the engine over slowly for inspection.

Like all our spring starters, the SZ series bolts directly into the standard starter pocket on the engine. Given the correct engine configuration, all of the electrics can be dispensed with. Fitting takes a matter of minutes, and operation of the starter does not need special skill or strength. Unlike a directly hand cranked engine, you can take your time to wind the starter and trip it when you are ready. There is no danger of kickback or back strain from wrestling with a reluctant engine, making the spring starter much safer and easier to use.

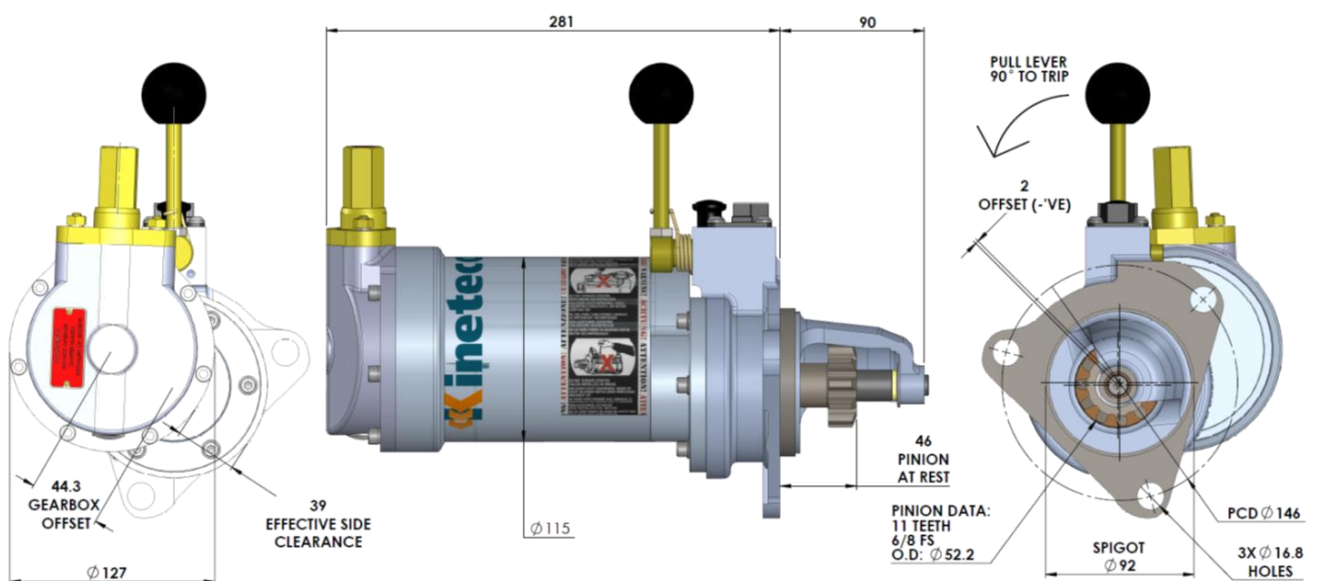


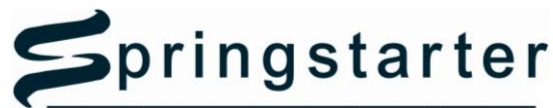
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Specifications – SZ Series

Rotation of Starter	Clockwise when viewed on the pinion
Engine Displacement	Max. 6 cylinders, up to 1 litre per cylinder
Torque (Range)	20 - 73 Nm Incremental
No. of Output Turns	4.4 - 16 Incremental
Output Energy	Nom. 950 Joules
Cold Starting	To 0°C, some engines require starting aids at lower temperatures.
Maximum Winding Load	23 Nm Torque
To Wind Fully	18 turns of the handle
Mounting Flange Type	SAE 1, SAE 2/3, SAE 4/5, Ford
Pinion	10/12, 8/10, 6/8 FS, Mod 2.5, 3
Winding Handle Position	Variable in 7.5° increments
Weight	16 Kgs
Shipping Dimensions	40 x 22 x 27 cms
Standard Equipment	Winding handle and handbook
OPTIONS	DETAILS AS ABOVE WITH THE FOLLOWING VARIATIONS
Reverse Rotation Model	SZR: Rotation anti-clockwise when viewed on the pinion
Lightweight Model	Special order
Dual Start Safe Model	Our new 'E-Pack' add-on for electric starter isolation in dual-start installations

Typical Dimensions





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Simms SZH2 Series High Energy Spring Starters



- Extra-powerful spring pack to start larger engines
- Z-drive to maximise engine clearance – can generally be fitted in place of a Simms starter for starting in difficult conditions
- Smooth action power spring for easy starting action
- Standard Simms nosepieces with manual engagement and trip mechanism
- Standard Simms crank wind with detachable handle
- Variable wind and unwind facility
- Reverse rotation, marine and dual-start safe options available

The SZH2 spring starters are our most powerful to date (though even tougher ones are on the way). They are designed for engines from 1.25 to over 2 litres/ cylinder, but are compact and flexible enough to fit smaller engines where starting is a problem – typically due to difficult conditions or a load at start up.

The flexibility comes from the Z-drive format, which is unique to our products. It allows variable positioning of the power pack – and gearing options to tune the starter's output characteristics. So the SZH2 series of starters can be configured to meet customers' requirements, whether on smaller engines or large.

The SZH2 starters use the well-proven Simms nosepiece and winding mechanism. With its manual engage and trip mechanism and detachable crank wind, the operator can choose exactly how the starter operates, down to using it to turn the engine over slowly for inspection.

The SZH2 starter is ideal for use on black start generators, pumps and compressors. It can be used with the wide range of Simms nosepiece and pinion configurations, which means that it will immediately fit many engines from a wide range of manufacturers. Being shorter and with better side clearance, it is generally backward compatible with the Simms SS/HSS series starter.

Like all our spring starters, the SZH2 bolts directly into the standard starter pocket on the engine. Given the correct engine configuration, all of the electrics can be dispensed with. Fitting takes a matter of minutes, and operation of the starter does not need special skill or strength.



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Specifications – SZH2 Series

Rotation of Starter	Clockwise when viewed on the pinion
Engine Displacement	Max. 6 cylinders, to over 2.25 litre per cylinder. Subject to local environmental conditions.
Torque (Range)	29.5 - 112 Nm Incremental
No. of Output Turns	5 - 19 Incremental
Output Energy	Nom. 2510 Joules
Cold Starting	To 5°C, some engines require starting aids at lower temperatures.
Maximum Winding Load	40 Nm Torque
To Wind Fully	35 turns of the handle
Mounting Flange Type	SAE 1, SAE 2/3, SAE 4/5, Ford
Pinion	10/12, 8/10, 6/8 FS, Mod 2.5, 3
Winding Handle Position	Variable in 5° increments
Weight	24 Kgs
Shipping Dimensions	40 x 22 x 27 cms
Standard Equipment	Winding handle and handbook
OPTIONS	DETAILS AS ABOVE WITH THE FOLLOWING VARIATIONS
Reverse Rotation Model	SZH2R: Rotation anti-clockwise when viewed on the pinion
Dual Start Safe Model	Our new 'E-Pack' add-on for electric starter isolation in dual-start installations

Typical Dimensions

