

# SUM & SUH SUBSOILER



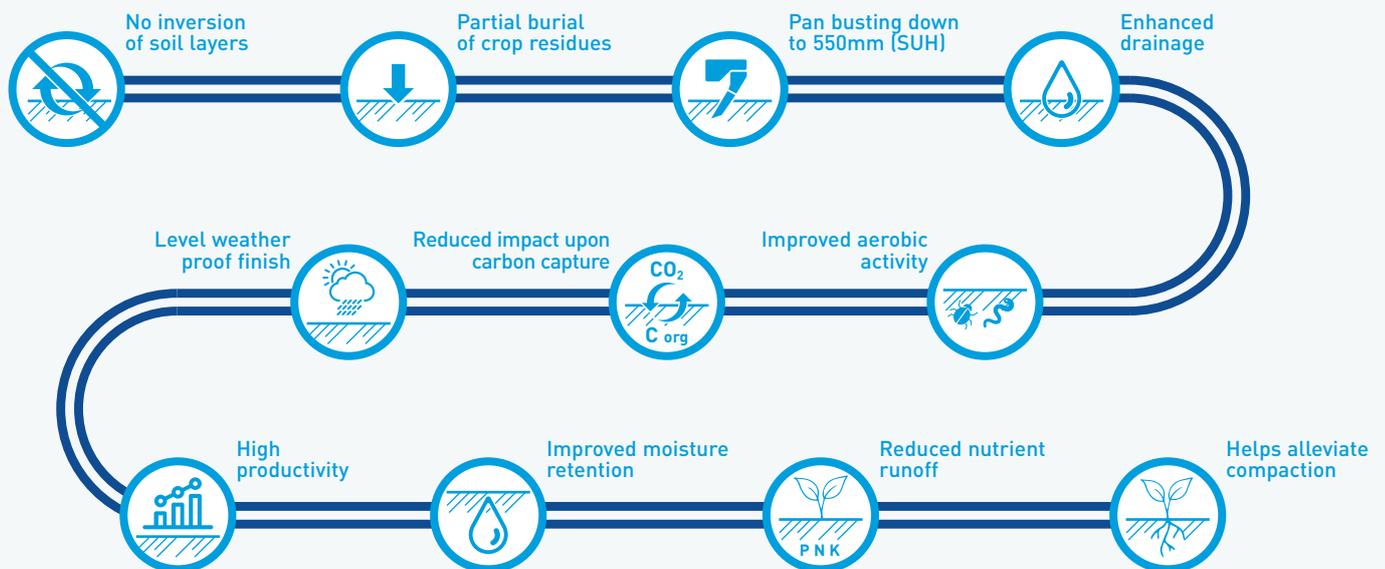
# Breathe life into your soils.

New Holland SUM medium duty and SUH heavy duty subsoilers are extremely versatile. Developed with features to enable them to match all soil types, simple adjustments allow efficient operation in widely varying conditions and can work directly into land following crops with high levels of residues. All models feature a leg with a reversible tip, a pair of adjustable and detachable side blade clod busters and a clod splitter to improve soil shatter. Working depth is accurately controlled by twin rear 220mm diameter spike rollers with an adjustable tilt angle. This enables the finish to be adjusted to suit the soil and conditions. Heavy soils will be left level and clod free, lighter soils with an open surface less liable to capping in adverse conditions. SUM models can be set to work at depths of between 200mm to 500mm. SUH models are designed to work between 250mm 550mm.

## Looking after the subsoil the New Holland way

SUM and SUH subsoilers form an integral part of the New Holland approach to minimum tillage. Designed to improve the structure of soils by loosening soil both vertically and laterally in the root zone, the rear rollers aid the incorporation of crop residues into the topsoil to boost soil organic matter.

A key to the effective subsoil loosening ability of SUM and SUH subsoilers is that the leg breaks soil from below without inversion. Further loosening by the adjustable lateral wings helps to ensure air and moisture can penetrate through the soil across the entire working width of the implement. The lateral wings eliminate the unworked banding of soil associated with more traditional subsoilers.



## Efficient, effective and economical. The New Holland advantage.

Several key features of SUM and SUH make these subsoilers more efficient, effective and economical.

- Unique low draft leg design reduces fuel consumption
- High productivity at recommended working speeds of 7.5 to 8.5km/hr
- Effective in all soil types
- Easy depth setting and accurate depth control
- No inversion or subsoil mixing
- Adjustable leg side blades enhance soil aeration across the working width
- Leg mounted clod splitter enhances soil shatter and protects leg from wear
- Reversible leg points, attached with roll pin fasteners, can be changed quickly
- Wave frame design and for excellent clearance in heavy crop residues
- Large 220mm spiked twin rear rollers incorporate trash, level and consolidate the soil to leave a weatherproof soil ahead of following cultivation

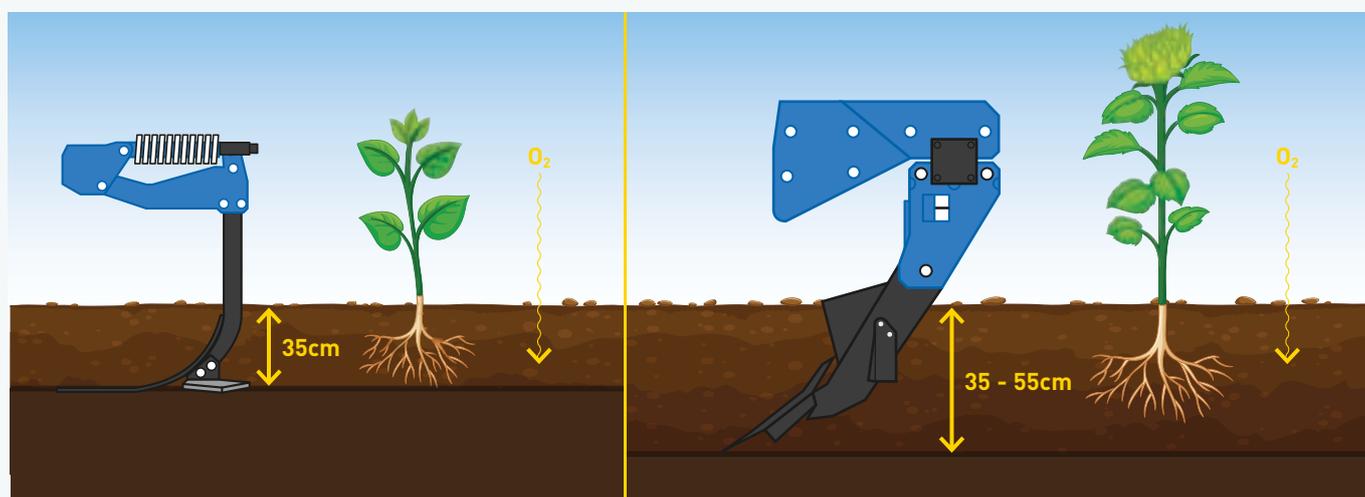


### Why use the SUM or SUH to cultivate below the seedbed?

Subsoiling is carried out on some land to help overcome poor localised drainage, reducing crop yields, declining drought tolerance, slow germination and a host of other problems. With SUM and SUH subsoilers, the aim is to encourage the use of these tools as an integral part of planned soil improvement. By working down to depths of up to 550mm, New Holland subsoilers do more than just repair existing damage in the soils rootzone. They enhance the soil and improve its structure with regular use each season.

Key to this is the action of the subsoiler legs to loosen the rootzone without mixing soil within the soil profile. This action helps to improve air and nutrient flow down through the soil layers, encouraging root formation deep into the soil.

With repeated use over the seasons, combining the action of SUM and SUH subsoilers with minimal cultivation tools such as the New Holland SDM and SDH cultivators will help develop the soils structure and repair damage, alleviate traffic pans and erase yield suppressing compaction. Natural soil health is encouraged by improving the flow of air and moisture in the deep rootzone.



Minimal tillage cultivators worked in tandem with SUM and SUH cultivators can eliminate compaction at all levels in the soil profile, as well as ensure air, moisture and nutrients penetrate deeper into the soil for enhanced root growth, deeper into the soils. This will improve draught tolerance and enhance crop vigour for improved plant health and yields.

# Right for your soils. Right for your budget.

New Holland SUM and SUH linkage-mounted subsoilers are offered in working widths of 2.50m, 3.00m and 4.00m, with a duty strength to match all soil types. Suitable for tractors of 110hp to 350hp, smaller enterprises through to large farms and contract operations have affordable access to New Holland advanced soil management. Both medium and heavy duty SUM and SUH models are offered with a choice of mechanical or auto-reset hydraulic leg protection.

### A fully welded frame built to match your workload

SUM medium duty subsoilers are built around an extremely strong, precision welded frame and can operate at working depths of up to 500mm. As with the heavier SUH models, the wave design of the frame allows heavy crop residues to pass through without blocking. A CAT III N / III hitch is standard.

- Hitch size: CAT III N / III
- Leg thickness: 30 mm
- Reversible leg tip
- Hydraulic side panels available
- Working depth: up to 500mm
- R model – shear-bolt leg protection
- RH model – hydraulic break back



Power (hp)	100	120	140	160	180	200	220	240	260	280
SUM 255 R	✓	✓	✓							
SUM 307 R				✓	✓	✓	✓			
SUM 307 RH				✓	✓	✓	✓	✓		
SUM 409 RH						✓	✓	✓	✓	✓

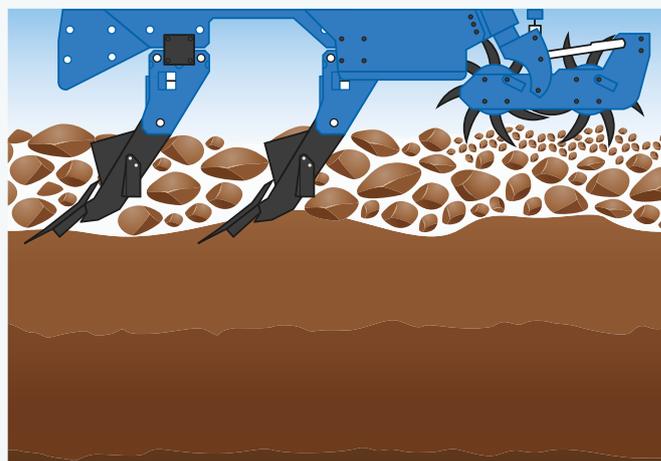
SUH subsoilers have been developed to work the most demanding soils and operate at depths of up to 550mm. Ideal for both contract operators and intensive workloads, SUH models are extremely robust. A CAT III / IV N hitch is standard.

- Hitch size: CAT III / IV N
- Leg thickness: 35mm
- Reversible leg tip
- Hydraulic side panels available
- Working depth: up to 550mm
- R models – shear-bolt leg protection
- RH model – hydraulic break back



Power (hp)	100	120	140	160	180	200	220	240	260	280
SUH 307 R					✓	✓	✓	✓		
SUH 409 R							✓	✓	✓	✓
SUH 307 RH					✓	✓	✓	✓	✓	✓
SUH 409 RH								✓	✓	✓

## Dig down to find the right working depth.



It is the condition of the soil that will determine the correct working depth. SUM and SUH subsoilers can be set to match varied soils and conditions.

By digging a test pit, the condition of the subsoil can be assessed and the working depth of the subsoiler set accordingly.



Depth adjustment is hydraulic and can be varied on the move [1]  
3 depth ranges can also be set for:

- A - Shallow
- B - Medium
- C - Deep tillage

Mechanical tie rods [2] adjust the tilt angle of the rollers to enable them to climb over lumps, the front roller should be set higher than the rear.



A graduated scale, easily visible from the tractor cab, provides an indication of the set working depth.

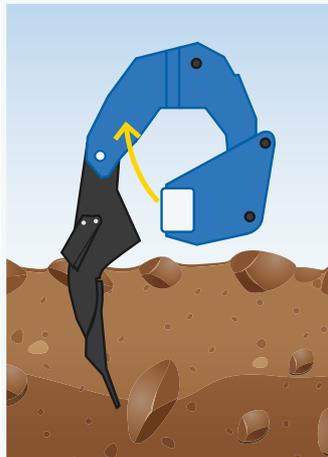
# The right tool for the job, now and in the future.

As part of the cultivation tools developed by New Holland to meet the needs of minimal tillage, SUM and SUH subsoilers can be specified to match your specific needs. A standout feature of New Holland subsoiler range is the fully welded frame on all models designed for maximum durability. All models have easily renewable wearing parts and are simple to set up for optimum performance. Soils worked by SUM and SUH subsoilers improve the structure of soils that have been damaged by poor practices, intense trafficking and flood damage.



## Shear bolt simplicity for all models

- All models feature shear bolts as either the primary (R models) or secondary (RH models) form of leg protection
- Shear bolts are set to break at 5400kg force (SUH) & 4200kg force (SUM)
- Offers protection from large immovable obstacles
- Onboard storage for 5 spare shear bolts



## Non-stop RH performance in stony ground

- SUM & SUH RH models are fitted with hydraulic auto reset stone protection
- Allows non-stop working in stony conditions
- Hydraulic cylinders on each leg are linked to nitrogen accumulators to provide damping
- Break back pressure can be adjusted between 1000 - 2000kg
- Large stones can be cleared in the subsoil without bringing them to the surface
- RH models offer a second layer of protection by using shear bolts if the obstacle cannot be overcome



## Lateral and leg clog breakers

- 140mm side blades are fitted to each leg to shatter lumps through the soil layers
- They have a minimized draft impact and are height adjustable depending on your working depth range
- Clod breakers mounted on the center of the leg serve as wear plates to protect the leg and as well as breaking large lumps



### Reversible leg points

Secured using purpose developed heavy duty roll pins, the leg points fitted to all models are easy to reverse or replace once fully worn.



### The right wearing parts for your soils

Different soils present their own challenges. SUM and SUH subsoilers are offered with boron steel points and lateral clod breakers. These are less liable to shear and are ideally suited to working in stony ground. For abrasive soils, the choice of tungsten coated wearing parts is recommended. These can have a working life of up three times a boron part working in the same conditions.



#### Boron Steel

Standard on HYDRO machines, offers high resistance to impact damage.



#### Tungsten Coating

Standard on MECHANICAL machines, tungsten coating has high wear resistance and is the ideal choice for abrasive, but stone free, soil.



#### Carbide Coating

Optional on all models offering 7 times more wear resistance than Boron steel to cope with exceptionally tough and stony soils.



SUM



SUH

SUM - Medium duty

Models		SUM 255 R	SUM 307 R	SUM 307 RH	SUM 409 RH
Working width	(m)	2.50	3.00	3.00	4.00
No. legs		5	7	7	9
Trip system		Mechanical	Mechanical	Hydraulic	Hydraulic
Hitch size		CAT III N and III			
Weight	(kg)	1600	1870	2350	2850
Hydraulic Requirement		1 DA	1 DA	2 DA	2 DA
HP range	(hp)	110 - 150	150 - 200	150 - 240	190 - 300
Working depth	(mm)	500	500	500	500

SUH - Heavy duty

Models		SUH 307 R	SUH 409 R	SUH 307 RH	SUH 409 RH
Working width	(m)	3.00	4.00	3.00	4.00
No. legs		7	9	7	9
Trip system		Mechanical	Mechanical	Hydraulic	Hydraulic
Hitch size		CAT III and IV N			
Weight	(kg)	2235	2930	2800	3350
Hydraulic Requirement		1 DA	1 DA	2 DA	2 DA
HP range	(hp)	190 - 250	220 - 330	180 - 280	250 - 350
Working depth	(mm)	550	550	550	550

New Holland prefers **AMBRA** lubricants



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