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ISTRUZIONI OPERATIVE

Fresaceppi F 460

Versione dal: 02. 2015

EUROPEAN UNION
EUROPEAN REGIONAL DEVELOPMENT FUND
INVESTMENT IN YOUR FUTURE

SABRE ITALIA Srl - Isola Vicentina (VI) -
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SABREITALIA
Attrezzati per natura

Prefazione

Grazie mille per aver appena acquistato il nostro prodotto, il tagliaceppi F 460 che completa la nostra fortunata famiglia F 450. La nostra azienda è impegnata da molti anni nella produzione di attrezzature per il taglio dei ceppi, la frantumazione e lo smaltimento dei residui di legno e ha maturato notevoli esperienze nel settore questo campo. La qualità delle nostre macchine piccole e potenti è comprovata nei 40 paesi dell'Europa e dell'Asia in cui esportiamo.
Questo manuale contiene istruzioni importanti per gli utenti, ovvero istruzioni per la messa in funzione della macchina, sicurezza sul lavoro ed esperienze operative.
Imparerai come eseguire la manutenzione, la riparazione e l'assistenza e chi è autorizzato a eseguire controlli e altri interventi sulla macchina.

Grand Prix Techagro 1998
Grand Prix Silva Regina 2002
Grand Prix Silva Regina 2008

Il tuo rivenditore locale ti fornirà questo manuale con le istruzioni per il funzionamento e la manutenzione durante la presa in consegna della nuova macchina. Assicurati di aver capito tutto. In caso contrario, non esitate a contattare il vostro rivenditore e chiedergli ulteriori spiegazioni. È molto importante per voi e per la vostra sicurezza sul lavoro comprendere tutte le istruzioni fornite in questo manuale.
La ditta Laski s.r.o. non si assume alcuna responsabilità per eventuali reclami derivanti dalla disobbedienza alle istruzioni riportate nel presente manuale.
Questo manuale operativo include anche istruzioni sulla sicurezza sul lavoro in varie parti del suo testo. Se c'è qualche regola o istruzione sulla sicurezza sul lavoro nella descrizione generale, allora questa
l'istruzione è indicata con il seguente simbolo:

EC CONFORMITY DECLARATION

issued in compliance with applicable EC Directives

We, as the manufacturer, **LASKI, s.r.o.**
Blišťka 263/16
Smržice
CZ-798 17
CRN: 45479593

declare hereby that our produ

- designatio **Stump cutter**
- type: **F 460**
- model : **F 460/18**
- serial number: .....

complies with the given EC Directives:
2006/42/EC – machinery
2004/108/EC - EMC
2002/88/EC, 97/68/EC

List of technical standards, specifications and harmonised norms used for assessment of its conformity: **EN ISO 12100, EN ISO 13732-1, EN 953+A1, EN ISO 11201, EN ISO 3767-1,3, EN 13 478+A1, EN ISO 14982, EN 1175-2, EN ISO 3744, EN ISO 20643, ISO 11 684**

Basic technical parameters:

Parameter	Unit	Value
Length	mm	2200
Width	mm	750
Height	mm	1150
Cutting head diameter	mm	470
Engine - type	-	KOHLER CH 620
Power output	kW	14,2
Weight	kg	205

The entity participating in this conformity assessment in accordance with Directive 2000/14/EC: **NB 1017, TÜV SÜD Czech s.r.o., Novodvorská 994/138, 142 21 Praha 4**

Measured sound power level of this equipment: L_{WA} = **103,8 dB**

Guaranteed sound power level: L_{WA} = **105,0 dB**

Completion of technical documentation: **Ing. Jiří Kvasnička**
Petra Bezruče 205
CZ-664 43 Želešice

In Smržice, on 1.9.2014

.....
Ing. Jiří Kvasnička

EC CONFORMITY DECLARATION

issued in compliance with applicable EC Directives

We, as the manufacturer, **LASKI, s.r.o.**
Blišťka 263/16
Smržice
CZ-798 17
CRN: 45479593

declare hereby that our produ
- designatio **Stump cutter**
- type: **F 460 E**
- model : **F 460 E/27**
- serial number: .....

complies with the given EC Directives:
2006/42/EC – machinery
2004/108/EC - EMC
2002/88/EC, 97/68/EC

List of technical standards, specifications and harmonised norms used for assessment of its conformity: **EN ISO 12100, EN ISO 13732-1, EN 953+A1, EN ISO 11201, EN ISO 3767-1,3, EN 13 478+A1, EN ISO 14982, EN 1175-2, EN ISO 3744, EN ISO 20643, ISO 11 684**

Basic technical parameters:

Parameter	Unit	Value
Length	mm	2200
Width	mm	780
Height	mm	1150
Cutting head diameter	mm	470
Engine - type	-	KOHLER CH 740
Power output	kW	18,6
Weight	kg	230

The entity participating in this conformity assessment in accordance with Directive 2000/14/EC: **NB 1017, TÜV SÜD Czech s.r.o., Novodvorská 994/138, 142 21 Praha 4**

Measured sound power level of this equipment: L_{WA} **= 105,4 dB**

Guaranteed sound power level: L_{WA} **= 106,0 dB**

Completion of technical documentation: **Ing. Jiří Kvasnička**
Petra Bezruče 205
CZ-664 43 Želešice

In Smržice, on 1.9.2014

.....
Ing. Jiří Kvasnička

Contenuti

Identificazione

Il nostro prodotto è identificato dal numero di serie stampigliato sia sulla targhetta che sul telaio. Inoltre sul blocco motore si trova una targhetta separata.
Al momento della presa in consegna del prodotto vi consigliamo di compilare il modulo seguente con i dati richiesti relativi al prodotto in questione e al vostro rivenditore.

Tipo di prodotto: ……..……..
Numero di serie del prodotto: ……..……
Tipo di motore: ……..……
Numero di serie del motore:……..……..
Indirizzo del rivenditore: ……..……..……
Indirizzo dell'autorizzato……..……

Assistenza: .....
Data di consegna: .....
Data di scadenza della garanzia:……..
Interruzione del periodo di garanzia…….……

La targhetta tipo prodotto/motore si trova sul telaio sotto la sua impugnatura/sul blocco motore.

Istruzioni sulla sicurezza sul lavoroUtilizzo

Questo prodotto è progettato per tagliare un ceppo con la parte fuori terra fino a + 300 mm e la parte interrata fino a max. profondità -200 mm sotto il piano campagna. Diametro ceppo consigliato: fino a 800 mm.

Questa fresaceppi è progettata per il controllo e l'utilizzo da parte di un solo assistente (operatore)..

Uso non permesso
Questa macchina non può essere utilizzata per il taglio di ceppi putrescenti che potrebbero staccarsi ed essere strappati dalle lame.
Evitare qualsiasi taglio se possono esserci corpi estranei e oggetti, come metallo, rottami di vetro, detriti pietrosi, ceramica ecc. nascosti nel ceppo.
È severamente vietato iniziare a lavorare con le protezioni rimosse, in particolar modo se manca la protezione posteriore della testata o se tale protezione non copre adeguatamente la testata.
Non è consentito utilizzare la taglierina se altre persone si trovano all'interno dell'area pericolosa (15 m).
Questa macchina non deve essere utilizzata da donne e minorenni.

Generalità

Non utilizzare questa macchina senza aver prima letto questo manuale.
L'utente/proprietario di questa macchina è obbligato a istruire gli addetti sulle istruzioni rilevanti per il suo funzionamento in modo dimostrabile.
La macchina non può essere utilizzate da utenti con deficienze fisiche o psichiche, da minorenni, da utenti che abbiano assunto alcool, medicinali o droghe anche leggere. E' consentito l'utilizzo solo a utenti con più di 18 anni, fisicamente e mentalmente capaci e chiaramente istruiti sul suo funzionamento.
Durante il lavoro indossare sempre i dispositivi di protezione individuale: visiera o occhiali protettivi, guanti protettivi, scarpe da lavoro e abiti da lavoro adeguatamente abbottonati. Evitare di indossare parti libere, come cravatte, sciarpe e scialli, cinture, ecc. Utilizzare protezioni per l'udito in base al livello di rumore del trattore.
Ogni operatore di questa macchina è pienamente responsabile per eventuali lesioni o danni causati a terze persone che si trovano nel raggio d'azione operativo della macchina.

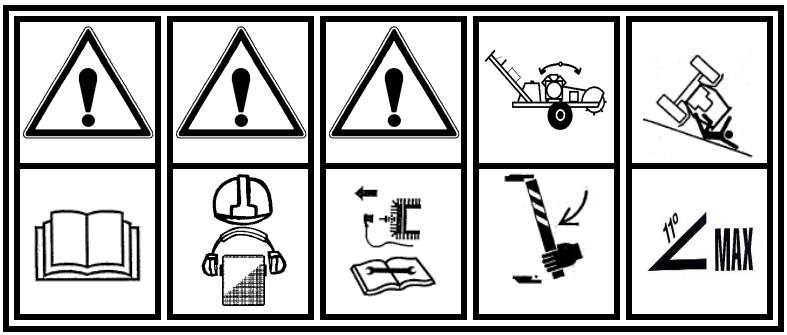
- Tenere questa macchina fuori dalla portata dei bambini e delle persone non autorizzate. Evitare la loro presenza durante il lavoro.
- Osservare l'area di lavoro. Se persone, bambini o animali si avvicinano durante il taglio, interrompere immediatamente il lavoro.
- Prima di lavorare apprendere tutte le funzioni dei singoli comandi e degli elementi di sicurezza ed effettuare controlli funzionali prima di qualsiasi utilizzo.
- Assicurarsi che, se necessario, lo spazio operativo e accessorio sia libero e sicuro.
- Durante il lavoro in zone residenziali utilizzare la macchina in conformità con le norme delle autorità locali per evitare disturbi agli abitanti locali (rumore, trucioli volanti).
- Prima di lavorare, assicurarsi che il bordo inferiore della protezione regolabile copra correttamente la testa di taglio.
- Durante il lavoro prestare attenzione ai trucioli che si accumulano dietro la testata di taglio. In caso di accumulo eccessivo, spegnere il motore ed attendere l'esaurimento della testa. Quando la testa si ferma, rimuovere i trucioli in eccesso.
- Questo manuale descrive i problemi e i guasti che possono verificarsi durante il lavoro e che potrebbero essere risolti da una persona istruita. In caso di altri problemi e guasti non esitate a contattare il produttore. È sempre pronto ad aiutarti.
- Non apportare mai modifiche tecniche o azioni non condivise né fornite in questo manuale né consentite dal produttore. Questa macchina, se non installata o regolata correttamente, potrebbe funzionare senza problemi ora, ma in futuro qualsiasi parte importante potrebbe non funzionare correttamente o causare danni fatali.
- Per la sostituzione di parti usurate o danneggiate utilizzare sempre e solo ricambi originali.
- Il produttore non si assume alcuna responsabilità per eventuali danni o lesioni a terzi, o ad altre apparecchiature, derivanti dalla disobbedienza alle istruzioni fornite in questo manuale.
- Non posizionare oggetti o strumenti sulla macchina.
- Non lasciare la macchina incustodita: chiudere il rubinetto del carburante.
- È severamente vietato iniziare a lavorare con le protezioni rimosse, in particolar modo se manca la protezione posteriore della testata o se tale protezione non copre adeguatamente la testata. Quando si consegna la macchina ad un'altra persona, assicurarsi che tutti i comandi, gli interruttori di emergenza della protezione e gli altri elementi di sicurezza siano completi, funzionanti e correttamente installati. Servono per la tua sicurezza.
- Dopo il lavoro pulire sempre tutte le parti della macchina (spazzola, straccio per la pulizia).
- Qualsiasi intervento o manutenzione sulla macchina può essere effettuato solo a motore spento e con la macchina adeguatamente bloccata contro movimenti indesiderati (tappi di arresto, supporti).

- Non utilizzare o tentare di avviare la fresaceppi senza che le protezioni della taglierina, i coperchi del motore e i coperchi di accesso siano saldamente in posizione. In caso contrario, si potrebbero verificare lesioni personali o morte.
- Rispettare gli intervalli indicati per il controllo delle giunzioni bullonate.Rispettare gli intervalli indicati per il controllo delle giunzioni imbullonate.
- Mantenere puliti i fori dell'aria di raffreddamento e il vano del serbatoio del carburante.
- Non utilizzare benzina e prodotti petroliferi simili come detergenti.
- Tenere la macchina fuori dalla portata di fiamme libere.
- Non è consentito il trasporto di persone o di qualsiasi carico sulla macchina.
- Alcune parti della macchina potrebbero surriscaldarsi. Non toccarle quando la macchina è ancora in funzione o appena ferma.
- Proteggere te stessi e le altre persone contro l'avviamento accidentale: dopo il lavoro chiudi sempre il rubinetto del carburante, porta la leva di comando in posizione STOP e porta l'interruttore del motore in posizione “0”. In casi di emergenza, scollegare il cavo della candela.
- L'eventuale trasporto ad altro cantiere è consentito solo con motore e testa di taglio smontata.
- Attenzione! La testata di taglio si alza subito dopo l'avviamento del motore.Tenete lontani voi stessi e le altre persone!
- Mentre il motore è in funzione, non toccare il motore, in particolare il cablaggio ad alta tensione.
- Non lasciare che il motore funzioni irragionevolmente ad alta velocità.
- Non tentare mai di riparare o reimpostare il motore, in particolare il regolatore di velocità.
- Non utilizzare la macchina in spazi ristretti o mal ventilati. I gas di scarico comprendono anche il monossido di carbonio, tossico che è incolore, inodore, insapore e può causare la morte se inalato.
- Tenere lontano il fuoco durante il riempimento del serbatoio.
- Rimuovere immediatamente eventuali fuoriuscite di carburante o olio e pulire tutte le macchie oleose.
- Se viene versato del carburante o viene traboccato, pulire le macchie e lasciarle evaporare completamente prima dell'avvio successivo.
- Rabboccare sempre il serbatoio del carburante prima di lavorare, mentre il motore e il serbatoio sono ancora freddi. Se è necessario rabboccare il serbatoio del carburante durante il lavoro, lasciare prima raffreddare il motore.
- Durante il lavoro, in particolare durante il trasporto della macchina o lo spostamento in altro cantiere, rispettare tutte le prescrizioni applicabili contenute nel relativo manuale. Nei trasporti pubblici su strada il conducente deve attenersi a tutte le normative locali valide per le strade pubbliche.

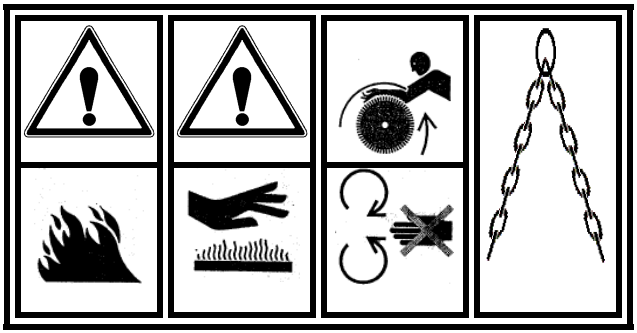
Work Safety Symbols

This article introduces work safety symbols (pictographs) used on this machine. Under the given pos. number there is their location on the machine. These work safety symbols warn the operator against risks connected with the machine use. Your respect to the symbol meaning is a precondition for your work safety.

The user is obliged to keep all the work safety symbols legible, clear and undamaged. In case of any damage or illegibility ask your local dealer or an authorised service for a new relevant pictograph.

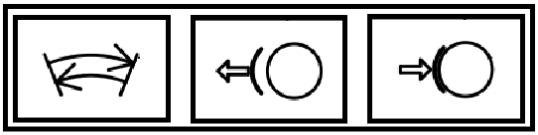


1	2	3	4	5
Read this operating manual before use.	While working, wear personal protective equipment.	While maintaining, servicing or repairing, keep always the instructions for turning the machine off	Before maintaining, servicing or repairing the machine, use always its support.	Avoid working with inclination exceeding the permissible limit.



6	7	8	9
Warning! Fuel is flammable liquid - keep the machine beyond the reach of naked flames.	Warning! Hot parts of exhaust manifold	Warning! Rotating parts – pull-in hazard.	Lashing points.

10	11	12	13	14
Warning! Lower extremities injury hazard.	Warning! Cutting head runs out.	Warning! Keep away – ejected objects hazard.	Warning! Keep hands away – squeeze hazard.	Warning! Close all guards before starting the machine.



15	16	17
Lock	Brake is released	Brake applied

Transport of Product/Handling

- This product is delivered completely mounted, with all guards and safety elements, controls, engine oil charge and necessary accessories ready to work

- This product is attached to a wooden pallet. While handling, you may use a lift truck or a crane (suspension in the given lashing points only) – unloading together with the pallet.
- The manufacturer delivers the machine shrink-wrapped. The protective foil protects the machine against weather effects but in no case against mechanical damage, fall etc.
- The protective foil is recyclable; dispose it according to valid local regulations.
- While putting the machine aside (e.g. at reloading), we recommend to place it under a shelter to protect the foil against direct sunshine.
- While unloading, put the machine aside always on a flat and firm base (its weight is about 280 kg incl. pallet).
- It is not allowed to put it on a labile base.
- It is not allowed to put any objects or tools on the machine or to pile other products.

Lifting

- While lifting by means of a crane (tackle), use only the given lashing points to suspend the load (marked with chain symbols).
- CAUTION! Never suspend the load on instable (tiltable) parts.
- Any other way of lifting is not allowed.
- The grip should not be in collision with clamps.
- For crane handling, use a crane (tackle) with its minimum carrying capacity of 300 kg.

Do not let the cutting head sink on a hard surface (stones, concrete) – for underlaying use a wooden board. Risk of blade damage.

Unloading from transport pallet

After delivery unload the machine from the transport pallet as follows:

- Cut the binding bands carefully. Be careful, the band is tightened up and after cutting its both ends may shot out. While cutting the band use protective gloves.
- Lift up the machine in order to remove the transport pallet and put it on the ground.
- It is also possible to ride down directly from the pallet: first remove the scotch blocks and use them as ramps against the wheels.
- Set the grip in its working position and lock it with a relevant locking bolt.

- Put the blocks in front of the pallet in the wheel spacing, in direction of the supposed travel.
- Lift up the supporting leg and release the brake.
- Before pushing the machine off the pallet, make sure if the space for the machine is free enough (presence of persons, animals).
- WARNING! Having pushed the machine, it will "move out" faster because of its weight (about 230 kg).

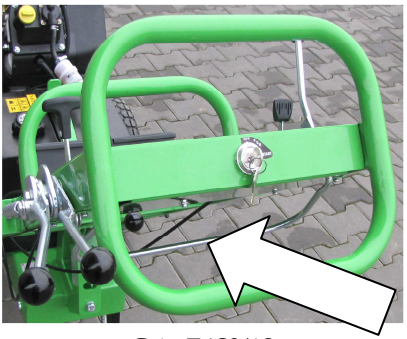
When unloading the machine from a transport pallet you can use also its driving gear (if any) to ride down directly from the pallet

Precautions in Design

This machine is provided with safety guards protecting against any contact with rotating parts (hit and pull-in hazard) and against hot parts (exhaust manifold). The guards are fixed, bolted down and solid, only the guard over the exhaust manifold is perforated.
At standstill the cutting head is covered with a pipe framing protecting the cutting head and its blades against hitting.
Under the grip there is the "dead-man lever" installed which has to be pushed down while working.
CAUTION! This machine cannot be started if this control lever is not pushed down.

Caution !!! Having released the dead-man lever, the cutting head is freely running out. Any further handling/motion is allowed only after dead stopping of the cutting head. Any braking of the head, while running out, is strictly forbidden.

Before starting and while running, the dead-man lever must be always held down on the green grip, see fig.



Grip F460/18

Grip F460 E/27

It is strictly forbidden to tie up the dead-man lever and to disable it anyhow
– it serves for your safety.

Residual Risks

HOT PARTS

The engine safety guard can be warmed up to 70°C provided the machine is used on sunny days during the summer season – risk of burns on its surface. To prevent severe burns do not touch the guard while the engine is still running – or immediately after its turning-off. Some engine components can get extremely hot from operation. To touch these components first wait for 10 min at least to let them cool down.

EXPLOSIVE VAPOURS

Refer to your local fuel supplier for the MSDS sheet. Fuel used for this engine is inflammable material with its class of danger I. If fuel refilling is required then put the machine out of operation and let the engine cool down. While fuel handling, keep it beyond the reach of naked flames and do not smoke!

EJECTION OF OBJECTS

Keep away – ejected objects hazard while cutting the stump. Prevent presence of persons or animals within the working area (within a 15 metre radius of the machine) – risk of injury.

UNWISHED MOTION

While putting the machine aside on a slope, always ensure that the machine wheels are adequately chocked and the hand brake is on.

ROTATING HEAD

When the drive is turned off, the cutting head could continue to rotate for a short while. Keep away – the cutting head runs out – risk of severe injury.

Attendant's Place

While working, the attendant should stand behind the grip (see fig.), holding it with both hands and with both feet standing on a flat and firm base. All working motions should be continuous and uniform.

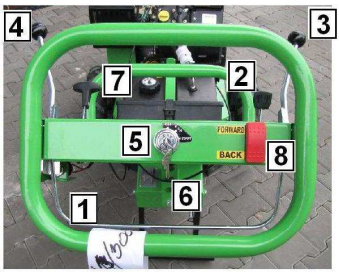
It is strictly forbidden to stand aside or to hold the grip with one hand only

Right attendant's position behind the grip

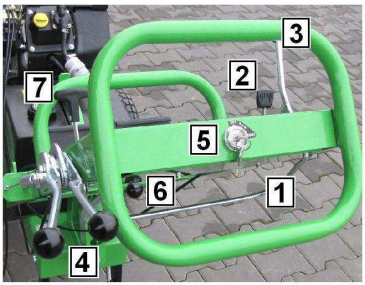
Standing aside – not allowed position

Controls

The stump cutter can be operated by means of controls on the grip and aside on the engine.



F 460E/27



F 460/18

1 – dead-man lever
2 – choke
3 – swivel base lock
6 – adjustment lever for grip positioning
7 – speed regulator

4 – wheel brake
5 – ignition switch
8 – travel gear button
9 – quick-switching battery contact (-)
10 – quick-switching battery contact (+)

Noise and Vibrations

Operation of this stump cutter brings following emissions:

	F 460	
	F 460/18	F 460E/27
Noise L_{Aeq} at idle (dB)	89,5	91,3
Sound power - measured L_{WA}	103,8	105,4
Sound power - guaranteed L_{WA}	105,0	106,0
Vibrations a_w ($m.s^{-2}$)	2,1	1,7

- All measurements taken in accordance with: EN ISO 11201
  EN ISO 3744
- Measurements of vibrations:
- Extended uncertainty of measurements: U = ±1,2 dB.
- The given uncertainty means total uncertainty based on standard deviation multiplied by the coefficient k=2 with a confidence interval approximately of 95%.
-
- Measurements of noise:
- Extended uncertainty of measurements: U = ±0,6 dB.
- The given uncertainty means total uncertainty based on standard deviation multiplied by the coefficient k=2 with a confidence interval approximately of 95%.
-
- All measurements were taken at max. speed of 3600 ±50 rpm.

Use

Before Operation

- Before the first putting into operation check up the machine for contingent damages and completeness after transport and storage.
- Check up wrapping for contingent oily spots.

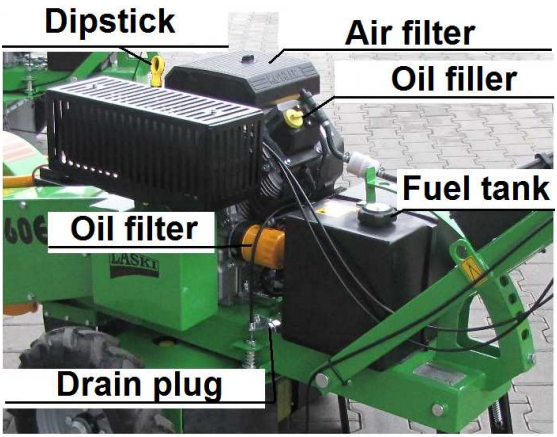
- Check up the engine oil level with a dipstick and top up if necessary. The engine oil level should be kept between both marks (MIN and MAX).
- Check up optimal slack of belts. It should be 10 - 15 mm.
- For replacement use always original spare parts only.
- Check up tightening of bolted joints, especially rotating parts and completeness of other subgroups.

Check up the cutting blades for wear and completeness. If one of them s damaged, change both opposite blades immediately.

- If different abrasion occurs, change both opposite blades on account of balance of the cutting head – unwanted vibrations may damage the machine.
- Fill the given fuel into the tank, min. volume of 2 litres. The tank has its max. capacity of 16 litres.
- The fuel to be used is unleaded petrol, ON 95.
- Check up the tire pressure – it should be 200 kPa in both wheels.
- Set the grip in its working position. The grip should be set in accordance with the attendant's height in order to make the operation of this machine more comfortable.
- Set the grip in its working position. The grip should be set in accordance with the attendant's height in order to make the operation of this machine more comfortable. This height adjustment is allowed to be done only if the machine is turned off.
- Having turned off the machine, avoid any contact of the cutting head while resting on the ground or on any hard objects. When putting the machine aside use always its supporting leg.
- Keep all unauthorised persons or animals beyond the handling range.

Set the cutter arm onto the stump, release the brake and the swivel base lock and start cutting in a swinging way to take individual stump layers continuously off.

- Any servicing of the cutter can be carried out by authorised persons only. If necessary, contact an authorised service.
- Avoid working or putting the machine aside with inclination exceeding the permissible limit of 11^{o}.



Putting into Operation

You can start the machine by turning the switch key in the ignition box:
Position: OFF – out of operation
RUN – running
START – starting

When starting, turn the key in the START position and keep it here up to 20 sec. When the engine roars to life, release the key. At the first start the engine may not roar to life immediately. Keep an interval between two starts (standstill) 60 sec at least.
For cold starting, first open the choke.
When starting for the first time after a longer break, it may be necessary to try it several times until the engine roars to life. Before the first start, be aware if the battery poles are connected properly. Set the speed regulator to its starting position (minimum speed) and push the dead-man lever.

- Pull the starting cord. For the first start it is necessary to pull the cord several times to suck the fuel into the engine carburettor. Pull the starting cord quite rapidly.
- Having started, raise the speed gradually by means of the speed regulator and close the choke.

Warm start:
- Open the fuel cock.

- Set the speed regulator to 1/3 speed.
- Pull the starting cord quite rapidly.
- Having started, wait for smooth running and then you may raise the speed to its maximum.

CAUTION !!! As soon as the engine roars to life, the cutting head starts turning. Start the engine first just before cutting – on site.

- Increase the engine idling speed and let the engine warm up (about 1 minute).
- While warming up, do not leave the machine unattended.
- Increase the speed continuously up to its maximum – start working.
- If you heard any strange noises or vibrations during its initial run turn off the cutter immediately and contact an authorised service.

Transport, Handling and Storage

- This machine is not designed for motion on public roads. It can be transported only on such a trailer which is designed for this purpose.
- For loading or unloading use suitable lifting means with min. carrying capacity of 250 kg.
- Lifting clamps should be fixed in the marked lashing points only.
- Before any handling, first lock up the swivel base to make the chassis steady.
- It is strictly forbidden to transport or to handle the machine with its swivel base lock released.
- If using a ramp for loading or unloading then it must be steady enough with no slippery surface.
- Such a ramp could be with a max. gradient of 20%. In case of this ramp gradient it should be preferable if other two persons will assist to you with such handling.
- After loading fix the machine properly on the loading surface.
- For transport it is necessary to protect the machine against weather effects.
- Any handling/working is allowed on the terrain with its max. permissible inclination of 11^{o}.

- Avoid any handling or work with inclination exceeding the permissible limit of 11°.
- In case of any handling the cutter on a rolling ground we recommend other two persons to assist you because of its weight.
- Be careful when going down the hill. We recommend pushing the machine forward, not to tow it.
- When going downhill be careful while using the brake.
- Transport the cutter only if the engine is off and the cutting head stopped.
- It is strictly forbidden to move the machine to site with its cutting head still turning.

  Store the stump cutter always in dry (sheltered) space to protect it against weather effects.
- Before storage clean all parts of the machine. Use also pressure water for cleaning of coarse impurities.
- Clean especially oily spots.
- Do not use petrol or similar fluids as a cleaning agent.
- Discharge the used oil into a special bin. Dispose the used filter element always in accordance with relevant valid laws and local regulations. Protect the environment.
- Exchange all damaged or worn parts. Use always original spare parts. For spare parts contact your dealer or authorised services.
- A faulty machine should be marked in a proper way to avoid its putting into operation by other persons before being repaired.
- Check up its right tire pressure.
- Before putting the machine aside for a longer time change the engine oil.
- Swing on the grip and lean it against the engine to save some space around the machine.
- Always put the machine aside on a flat and solid floor and block it against unwilling motion.
- Check up coated surfaces. Repaint the spots and conserve them if needed.

Use

- Transport the machine to another site with the engine off by pushing or towing.
- Keep all work safety instructions to avoid any risks of injury.
- When going to another working site always ascend and descend slopes very carefully and with the cutting head up the hill.

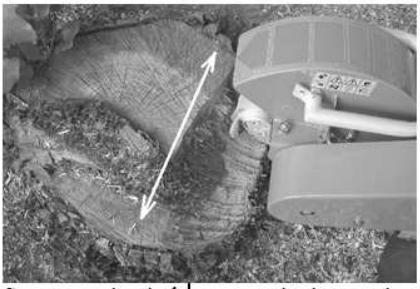
- Be careful when going down the hill. We recommend pushing the machine forward, not to tow it. When going up the hill it is necessary to tow the machine (if necessary by two persons).
- Always adapt transport speed to current terrain conditions.
- On the working site move the machine in front of the stump to be cut.
- Set the cutter so that
  - it stands on a flat and firm base or declined up to 11°;
  - it is possible to swing with grip (while cutting) according to particular chips up to 1 cm;
  - it is possible to push the cutter continuously into a bite in accordance with required particular chips or into a halve of the given stump at least;
  - it is possible to cut under the ground;
  - it is possible to keep space for putting the cutter aside in a stabile position for the purpose of further chips removal;
  - it is possible to direct flying chips out of places with possible motion of persons;
  - if necessary, remove some soil to make the given stump more accessible to avoid digging the soil (with stones) by the cutting head.
- Set the cutter to a stump to be able to cut it in swinging motion and to take particular stump layers off.
- Start the machine – see chap. Putting into Operation.
- After a short warming-up, especially in winter, set the controls and the accelerator lever for necessary working speed.
- While cutting, let both wheels braked.
- Run slowly up and start cutting with thinner wood chips (swinging the grip) and go on faster if possible according to actual engine load. While swinging the grip, we recommend covering the whole stump profile.
- WARNING!! The grip may have a return impact while cutting the first chips so that it is necessary to hold the grip with both hands (together with the dead-man lever).
- Having cut the first stump layer off, it is possible to let the cutting head sink by lifting the grip and to repeat the swinging motion for the next layer (see fig.) or to release the wheel brake and to push the cutter forward for further approximately 2 cm and to cut the next layer.
- If there are too many chips gathered behind the cutting head, turn off the machine, wait until the head stops and remove the chips so that you can always observe the head while cutting.
-  While the cutting head is still running, it is strictly forbidden to enter the space of the running head with extremities or with any tools (sticks, rake etc.)

CAUTION! Having released the dead-man lever the cutting head runs out!

RECOMMENDATIONS: *While cutting, push the cutting head through corresponding pressure on the grip. Do not let the engine speed fall by more than 800 rpm. Avoid engine stalling or any bigger variation in speed. Pressure on the grip should correspond with the chips size accordingly.*

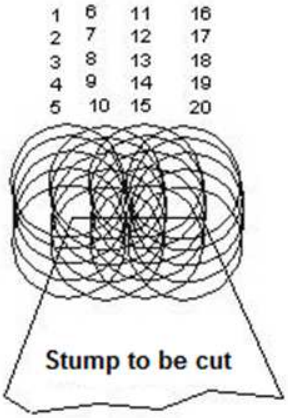
While cutting dozy stumps and wood substances of different qualities (dozy and sound wood) keep always the same chips size also in case of temporary speed changes.

Begin of cutting



Stump cutting in layers at swinging motion

Stepwise cutting from particular sides



Simple drawing of individual cuts


Side swinging on released swivel base

Putting out of Operation

When having finished the work or for a break:

- reduce the engine speed – idling;
- do not swing the machine, just bring it back a little and keep standing;
- while idling, wait for about 2 or 3 minutes to let the engine cool down;
- set the speed regulator in the STOP position and turn the breaker (ignition switch) off;
- release the grip and the dead-man lever and wait until the cutting head stops;
- while turning the machine off, avoid any contact of the cutting head when resting on the ground or on any hard objects (stones, iron etc.) – use always its supporting leg.

Having turned the centrifugal clutch off, the cutting head is freely turning out. This turning time depends on the speed in which the engine has been turned off

Any braking of the head is strictly forbidden – injury hazard.

Emergency Situations

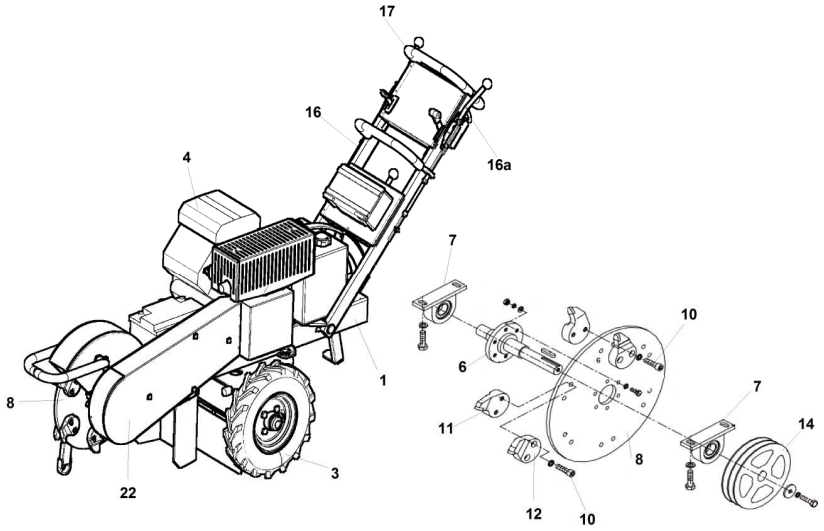
Put the cutter out of operation immediately in the following cases:

- If any person or animal approaches the working area (15 m) while cutting, then stop working immediately.
- In case of any indisposition of the attendant.
- If any breakage, damage or disengagement occurs, stop cutting immediately.
- If you heard any strange noise or vibrations or felt a strange smell while cutting, then turn off the machine immediately and contact your dealer or directly the manufacturer.
- In case of fire or breakdown, stop cutting immediately.
- In case of fire use foam extinguishers only.
- If you cannot damp the fire down yourself, call for a fire brigade.

Technical Description

1. The stump cutter consists of the chassis (1) with two travel wheels (3). On the chassis there is a driving unit (4). The cutting head (8) with its blades (11, 12), overlapping the head periphery, is mounted at the end part of the chassis (1). The cutting head is powered by the driving unit (4) and controlled also by means of the grip (16) and the dead-man lever (16a) on the opposite edge of the chassis. The blades (11, 12) are mounted on the head periphery (8) with two pairs of fixing bolts (10). The blades are left and right.

2. One of the blades is always a straight tool (11) and the other one is a bent tool (12). The straight tools (11) in adjacent pairs are always fixed on the opposite sides of the cutting head (8).
3. The cutting head (8) is powered by the driving unit (4) by means of the V-belts (15). The cutting head (8) and the V-belts (15) are covered with the guard (22).
4. The grip (16) is angularly adjustable on the chassis (1) and equipped with the height-adjustable handle (17).
5. Both travel wheels are provided with brakes.



Technical Parameters

		F460/18	F460E/27
Overall length working/transport	mm	2200/1680	
Overall width	mm	750	780
Overall height working/transport	mm	1150/880	
Tires	palce	4,00 - 8 - TZ 7	
Tire pressure	kPa	200	
Brakes	-	mechanical shoe brake acting on both wheels	
Cutting performance:	mm	300 mm above ground 200 mm under ground 800 mm recommended stump diameter 900 mm cutting width	
Cutting head diameter	mm	410	
with blades	mm	470	
Number of blades:	-	12	
Engagement	mm	60	
V-belt	-	2xB 17x1900Li	
ENGINE			
Type		KOHLER CH 620 four-stroke, air-cooled	KOHLER CH 740 four-stroke, air-cooled
Power output	HP/ kW	19/14,2 at 3600 rpm	25/18,6 at 3600 rpm

Engine oil charge	l	1,9	1,8
Fuel tank capacity	l	16	16
Max. engine inclination	^{0}	25	25
Lubrication	-	splash lubrication	
Engine oil	-	SAE 15 W-40	
Fuel		unleaded petrol (ON 95)	
Starter	-	manual cord starter	
Weight of machine	kg	205	230

Maintenance

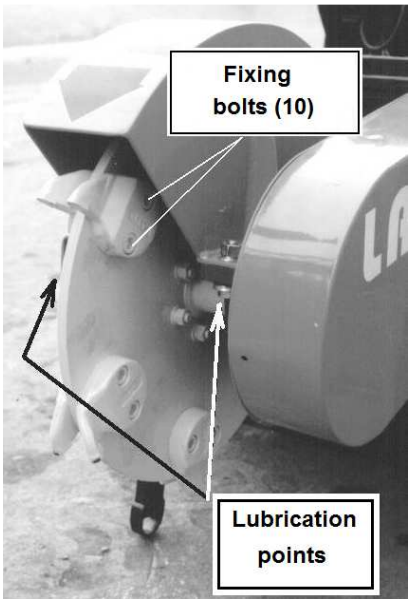
- Any servicing of the cutter is allowed to be carried out by authorised persons only.
- Any servicing is allowed to be done only if the machine was put out of operation, supported by means of its supporting leg and if the engine is not running.
- While working, servicing or cleaning wear always personal protective equipment - protecting shield or goggles, protective gloves, working shoes and working cloth properly buttoned. Avoid wearing free parts, such as ties, scarves and shawls, belts etc. In case of longer hairs use always a proper head piece. Otherwise, such a person is not allowed to operate this machine.
- Any servicing and maintenance should be carried out in spaces designed for such purposes only.
- Check up the machine for completeness and its general condition.
- Check up the V-belts for tightness and wear.
- Keep regular intervals for lubrication of the cutting head bearings.
- Check up condition of the bowden with control cables. If damaged, change it.
- Discharge used oil into a special bin. Dispose used filter elements always in accordance with applicable laws and local regulations. Protect the environment.
- Do not start if some fuel or oil has been spilled. Remove oily spots and keep all parts clean.
- Always use suitable supporting means while maintaining, servicing or repairing the machine. Do not use any crumbling materials.
- Keep in mind that some machine parts and edges are sharp – risk of injury.
- Keep the given intervals for checks of bolted joints.
- After every working shift check up tightening of bolted joints, particularly rotating parts and completeness of other parts, such as fixation of blades and subgroups on framing.
- Any servicing is allowed to be done at standstill only.

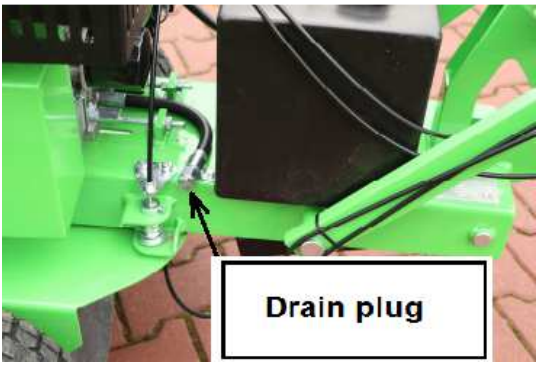
- Provide your machine shops with suitable extinguishers and first-aid kits to be accessible anytime at fire risk. Keep ready necessary telephone numbers for emergency cases (fire brigade, emergency).
- Do not smoke while handling lubricants, oils and fuel. Keep open fire away.
- Store fuel canisters and other flammable materials (cleaning rags) separately. Keep them away from heat sources. Protect the environment.
- Avoid any toxic gas vapours and dust formation. Dangerous vapours may arise if coats warm up while welding (gas burner) or grinding. Such works should be done in well-ventilated rooms or in free space only. Keep applicable regulations concerning coats and solvents. Remove old paints before welding. If some parts have to be grit-blasted or re-ground, avoid inhalation of abrasion dust and use necessary personal protective equipment (breathing mask). Having used any solvent before welding, rinse treated surfaces with soap water and wait for about 15 minutes (flash time) and let the spots fully evaporate.
- For repairs and servicing use reasonable local lighting and a portable safety lamp (24 V). This lamp should be equipped with a safety grid to avoid contact with oily spots - self-inflammation hazard. Keep your working place clean and dry.
- Any damaged or worn parts should be replaced immediately. Remove accumulated old lubricants, oil and keep all parts clean.
- Discharge used oil into a special bin (no packages after meals or drinks). Dispose used oil always in accordance with applicable laws and local regulations. Protect the environment.
- Use always original spare parts and proper tools.
- For lifting use always means of proper carrying capacity only. It is possible to use a crane (clamps) with suspension at the given lashing points marked with chain symbols.

Engine Oil Change	The first oil change after 100 working hours and next changes every 100 hrs. Change the oil always when the engine is turned off and still warm. Discharge the used oil into a bin through the drain plug on an adapter behind the cutting head. Having discharged the whole volume screw up the drain plug and fill new oil of proper viscosity through the filler neck and then screw up the filler plug. In case of any failure in the lubrication system the engine stops
Oil Filter	should be changed every 200 hours of operation.
Air Filter	The air filter with two filter elements provides maximum

	protection against mechanic impurities and keeps continuous air flow into the fuel system. Remove the filter cap and unscrew the locking nut and remove the filter element. Check the air pre-cleaner every 25 working hrs as follows: a) Remove the pre-cleaner carefully from the paper element and clean it in the warm water with a non-foamy detergent. b) Rinse the element with the water, press the water out and dry it up. Put the cleaned element into the body, tighten up the nut and fit the cap again. In case of heavy fouling check up the element more frequently. Check up the paper element every 10 working hours. If fouled, change the element immediately. CAUTION! - Never oil the element and never clean it with paraffin or similar detergents
Ignition	The electromagnetic ignition system requires no further adjustment. Its spark plug, power cable and plug socket should be checked every 100 hrs. This check consists in cleaning of electrodes and setting of the spark gap to 1,00 mm. Spark plugs should be changed every 300 hrs.
Cleaning of Engine	Clean the engine according to its actual impurity grade by means of the pressure air (pressure water). CAUTION! When cleaning with pressure water, avoid its penetration into the air intake and ignition systems. Clean the engine also after every change of oil or air filter element. Check up also bolted joints for tightening. Any repairs of the engine should be done by an authorised Kohler/Honda service only.
Starting Equipment	This cutter is equipped with a mechanical cord starter. Check up especially condition of the starting cord. CAUTION! The starting winch includes also a preloaded spring which may cause injury at unskilled handling
Electric Installation	Protect all wires against contact with oil products. Keep all elements clean and avoid any damage of wires – short circuit risk. All connections must have clean and proper contact surfaces to avoid intermediate resistance at a wrong contact

	point.
Parking Brake	Check up brake-lining wear and brake mechanism adjustment. In case of a higher travel of the hand lever tighten up the brake wire by means of its tightening bolts.
Chassis	Check up regularly all bolted joints, wear and air pressure of tires. Keep all parts of the machine clean - clean them according to its actual impurity grade by means of pressure air. Oily spots should be removed and degreased.





Replacement of Blades and Regrinding

When changing the blades proceed as follows:

- Loosen the bolts (10)
- Remove worn blades and fit new ones
- Tighten up the bolts

- Use torque wrench - torque value of 105 Nm
- Use always original spare parts and the LASKI bolts (10) only
- At this change proceed carefully and avoid any work accident
- Secure the machine against possible rollover

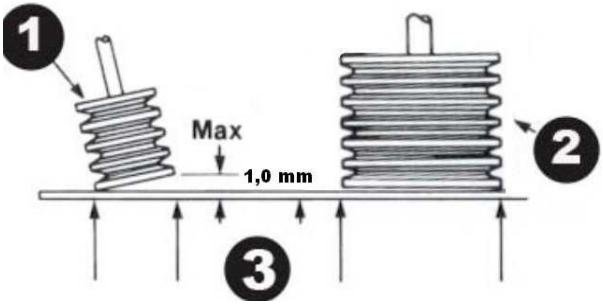
V-belt Tension

- It is necessary to pay special attention to the routine maintenance and proper belt tension adjustment because the V-belts on this machine transfer the engine torque to the cutting head. Belt creeping may bring considerable impact on the cutting head performance and service life of belts.
-
- For belt tension adjustment remove two side covers fixed here by the fixing bolts M8.
-

For proper belt tension check up also alignment of pulleys (their faces) starting as from the belt pulley put on the shaft together with the cutting head. This shaft is bedded in two fixed bearing housings. Before adjustment, check up also proper bedding of pulleys on the shaft (tongue and groove). Each pulley must bear on the shaft shoulder and be fixed by its central fixing bolt (torque 80 Nm).

While tightening the belts proceed as follows:

- **Check up tension of new belts after first 5 service hours and afterwards always in intervals of 50 hours.** Excessive slipping will wear the belts and the pulleys out prematurely. Excessive tension reduces belt life essentially. It brings also negative impact on optimal alignment of pulleys.



- 1 – driving pulley on engine

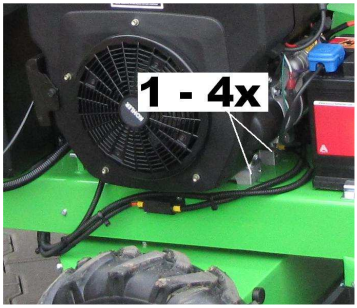
2 – pulley on cutting head shaft

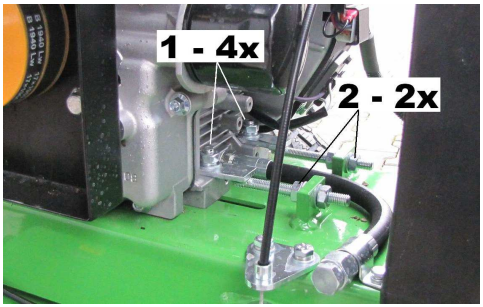
3 – straight-edge rule

- **Align the pulleys** (their faces) by means of a straight-edge rule starting as from the lay-shaft pulley, go on to the engine driving pulley and finally to the cutting head pulley. Max. inclination/deflection allowed should be less than 1 mm. If this inclination found between the driving pulley (engine) and the driven pulley (cutting head) exceeds this limit value, proceed as follows:

- Alignment setting on the engine pulley

-





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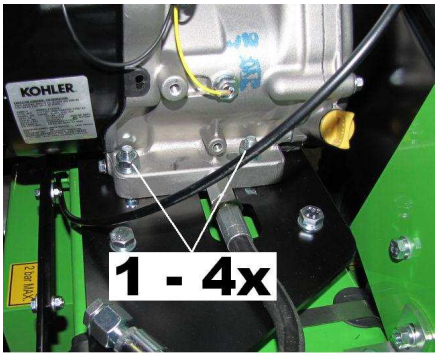
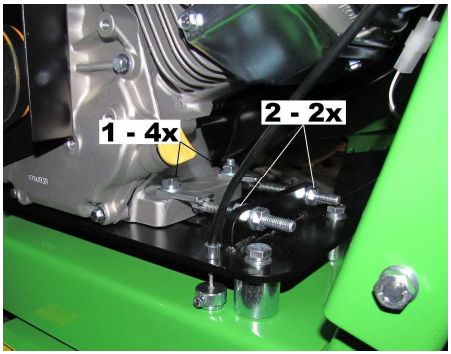
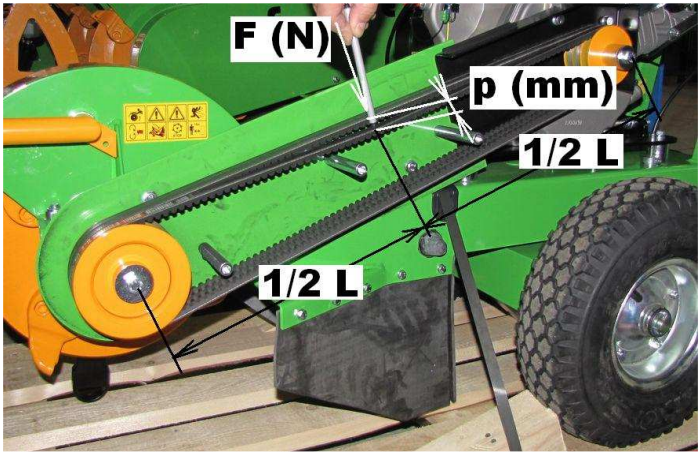
- Attachment of the engine to the frame, F 460





Attachment of the engine to the frame, F 360

- Loosen four fixing bolts on the engine (1 - 4x) by 0,5 – 1 turn to let the engine slide on the frame.
- Loosen the locking nuts on the stretching bolts (2 - 2x) and move the engine in its slot holes as necessary. Go on displacing the engine to set up optimal belt tension/slack “p” at finger pressure “F”.
- Having reached the recommended belt slack value and proper pulley alignment, retighten the fixing bolts on the engine (1 - 4x) and the locking nuts (2 - 2x).



Belts as to modification	Finger pressure F (N)	Slack p (mm)
F 460	75	20,5

Replace the belts guards

Failures and Troubleshooting

Failure	**Cause**	Remedy	
Engine does not start	Speed regulator lever in STOP position	Set proper speed	
	Ignition breaker in "0" position	Set it in "I" position	
	Broken lead	Check up wiring	service
	No plug sparking	Clean (change) spark plug	
	Fouled fuel filter	Change filter element	
	Lack of fuel	Top up fuel	
	Low engine oil level	Top up oil	
Insufficient engine power	Fouled air filter	Clean	
	Dead piston rings	Repair	service
Insufficient power	V-belts slack	Retighten	

transmission to cutting head	Burnt V-belts	Replacement	
	Worn (extended) V-belts	Replacement	
Insufficient cutting head power	Damaged blades	Replacement	⚠ **Opposite blades should be replaced always together**
	Blunt or worn blades	Replace or regrind blades	
	Wire control out of tune	Adjustment	service

Note: The note "SERVICE" in the "Remedy" column means that this operation should be done by an authorised service only.

Waste Disposal

Any waste materials resulting from the machine operation should be disposed in accordance with laws and regulations valid in the given country.

Protect nature and water resources against used oil, lubricants and filter elements.

Any parts of the machine should be disposed in accordance with laws and regulations valid in the given country.

We recommend proceeding as follows:

1. Remove all reusable parts, clean them, conserve and store for further usage.
2. Remove old lubricants and used-up oil, remove all plastic and rubber parts. These parts should be disposed in accordance with laws and regulations valid in the given country.
3. Remove all parts made of non-ferrous metals (bushings etc.). Remaining parts of the machine, incl. non-ferrous metal parts, should be delivered to an authorised waste collection point.

Recommended disposal of packages:
Wood - secondary waste recovery, burning

Paper - secondary waste recovery, burning
Metals - secondary waste recovery

Other materials are municipal waste and should be disposed in accordance with laws and regulations valid in the given country.

Warranty

The manufacturer provides warranty on this product for a period as stated in the enclosed Letter of Indemnity. This warranty period begins upon delivery to the customer.

This warranty covers all failures resulted from faulty assembly, manufacture and materials.

The manufacturer bears no responsibility for damages resulted from user's wrong usage, such as:

- Usage by an unauthorised person.
- Unauthorised changes, repairs and actions on the machine.
- Usage of unoriginal spare parts or parts intended for other models.
- Disobedience to the given instructions for use.
- Damage of the machine caused by faulty handling, maintenance or overloading.
- This warranty does not cover faults resulted from damages caused by the user.
- This warranty does not cover parts being subject to ordinary wear and tear.
- This warranty does not cover any damage of machine caused by usage of unoriginal spare parts.
- This warranty does not cover consequences resulted from weather effects.

Any warranty claims must be submitted in writing with papers concerning acceptance for warranty or post-warranty repair.

Service Report

Type of machine:	Serial number:
Day of inspection: **after 6 months**	Working hours: **after 100 hrs**

Operations done:

- Engine oil - change Yes No
  Sort / viscosity .....
- Oil filter – change Yes No
- Air filter – change Yes No
- Fuel filter – change Yes No
- Solidification point of coolant ..... °C
- Hydraulic oil – change Yes No
  Sort / viscosity .....
- Oil filter element – change Yes No

Stamp of service station; technician's signature

Additional data:

Date:..... Working hours: .....

.....

.....

Date:..... Working hours: .....

.....

.....

Next service inspection (whichever occurs first)

Date:..... Working hours:.....

Service Report

Type of machine:	Serial number:
Day of inspection:	Working hours:

Operations done:

- Engine oil - change Yes No
  Sort / viscosity .....
- Oil filter – change Yes No
- Air filter – change Yes No
- Fuel filter – change Yes No
- Solidification point of coolant ..... °C
- Hydraulic oil – change Yes No
  Sort / viscosity .....
- Oil filter element – change Yes No

Stamp of service station; technician's signature

Additional data:

Date:..... Working hours: .....

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Date:..... Working hours: .....

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Next service inspection (whichever occurs first)

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Service Report

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  Sort / viscosity .....
- Oil filter element – change Yes No

Stamp of service station; technician's signature

Additional data:

Date:..... Working hours: .....

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Date:..... Working hours: .....

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Next service inspection (whichever occurs first)

Date:..... Working hours:.....