



操作手册  
Operator's manual

背负式动力喷雾机  
Knapsack Power Sprayer

**323S15**  
**323S25**



使用机器之前，请仔细阅读操作手册，确保了解使用说明  
Please read the operator's manual carefully and make sure you understand the instructions before using the machine

中文 (1-28)  
English (29-54)

符号说明

符号



警告！如果使用不当或粗心大意，本产品可能会成为危险的工具，可能会对操作者或他人造成严重或致命伤害。



操作机器前请仔细阅读操作手册。



本产品符合3C认证要求。



生产许可证



请务必配戴：  
• 口罩  
• 护目镜  
• 工作帽  
• 防护服  
防止将杀虫剂喷到身上。



日常检查时，请停止发动机。  
热表面烧伤手指或手掌。



旁观者与整机保持一定安全距离。  
谨防高压液体喷射到身上。



明火不要靠近加油口在加油时，请停止发动机。



混合汽油加注口




阻风门关闭方向



阻风门打开方向



起动注油器



切勿改装机器。  
如果使用经过改造的动力喷雾机，或者没有遵循本手册中正确用途，将致使机器的保修无效。

铭牌

产品名称: 背负式动力喷雾机

产品型号: 323S15

毛重: 12.5Kg

外形尺寸: 42X39X66cm

执行标准: GB10395.6-2006

数量: 1

制造商名称:富世华全能(常州)机械有限公司

地址:江苏省常州市新北区黄河西路 366号

电话: 021-23570700 0519-85103888

传真: 021-23570701 0519-85137187

EAN13/UPC

7 391736 205542

Product No (240) / Serial No. (21)

(240)0967078301(21)XXXXXX



- 第 1 行: 产品名称

第 2 行: 产品型号

第 3 行: 产品重量

第 4 行: 产品尺寸

第 5 行: 执行标准

第 6 行: 数量

第 7 行: 制造商

第 8 行: 制造商地址

第 9 行: 制造商电话号码

第 10 行: 制造商传真号码

第 11 行: 通用产品代码

第 12 行: 产品编号/序列号



富世华全能(常州)机械有限公司

机器名称 背负式动力喷雾机

机器型号 323S15

额定功率/转速 0.75Kw/7500r/min

工作压力 1.5-3.0MPa

生产日期

20171500001



- 第 1 行: 制造商

第 2 行: 产品名称

第 3 行: 产品型号

第 4 行: 额定功率/转速

第 5 行: 工作压力

第 6 行: 生产日期

环保信息标签

达到国家GB 26133-2010第 II 阶段排放标准

机械环保信息公开编号:XXXX XXXX XXXX XXXX XXXX XXXX

发动机环保信息公开编号:XXXX XXXX XXXX XXXX XXXX XXXX

生产日期: 201707

基本信息	型号: 323S25	名称: 背负式动力喷雾机
	商标: Husqvarna	机械类型:农业机械
	发动机型号: GZ26A	
	发动机制造商名称: 富世华全能(常州)机械有限公司	
排放控制耐久期:50小时		
环保关键部件: 化油器、催化剂		

- 第 1 行: 标签名称

第 2 行: 排放标准, 生产日期

第 3 行: 机械环保信息公开编号

第 4 行: 发动机环保信息公开编号

第 5 行: 基本信息

第 6 行: 排放控制耐久期

第 7 行: 环保关键部件

# 目录

符号说明

符号 ..... 2

目录

启动前应注意以下事项 ..... 3

引言

尊敬的客户： ..... 4

构造图示说明 ..... 5

预期用途

产品说明 ..... 6

预期用途 ..... 6

安全性

安全操作须知 ..... 6

安装

装配喷雾机 ..... 9

连接喷雾软管组件至泵出口 ..... 9

连接喷雾软管组件至喷杆 ..... 9

安装和调整扣带组件 ..... 9

启动喷雾机前的检查 ..... 9

燃油

混合燃油 ..... 10

为机器加油 ..... 10

化学药剂的加注

加注步骤 ..... 11

操作

启动引擎 ..... 11

停止引擎 ..... 12

喷药 ..... 13

喷药步骤 ..... 13

完成喷药后清洁 ..... 13

维护

检查空气滤清器 ..... 14

检查燃油滤清器 ..... 14

检查火花塞 ..... 14

调节引擎速度 ..... 14

检查喷嘴 ..... 15

检查泵的油位 ..... 15

检查消音器 ..... 16

检查空气散热风扇 ..... 16

更换齿轮油 ..... 16

检查油脂杯 ..... 17

废弃处理和存放

废弃处理 ..... 18

存放 ..... 18

故障检修

技术参数

装运清单

零部件图解及目录

**启动前应注意以下事项**

请详细阅读操作手册。

本产品及手册中带标记▲的警告标签涉及重要的安全事项。请熟悉并遵循这些警告标签。

如果产品上的警告标签被沾污或者脱落，请从您的经销商处订购替换标签并将其粘贴在必要的位置。

**注意事项**

在本操作手册中，以下注意事项特别重要。

**手册中的安全符号**

▲ 危险

如果不可避免，将造成死亡或严重伤害

▲ 警告

如果不可避免，可能造成死亡或严重伤害

▲ 注意

如果不可避免，可能造成轻微或中等程度伤害

# 引言

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**尊敬的客户：**

感谢您选购富世华产品！富世华的历史可以追溯到 1689 年，当时瑞典国王查尔斯十一世下令在胡斯克瓦纳河的河岸上开办一家火枪生产厂。选择这一地点非常合理，这是因为当时利用胡斯克瓦纳河中的水力来建立水力发电站。在 300 多年的成长过程中，富世华工厂生产出了许多不同的产品，从木炉到现代化厨房用品、缝纫机、自行车、摩托车等等。1956 年，第一台电机驱动除草机问世，随后于 1959 年链锯诞生，这就是富世华如今所从事的领域。

如今，富世华已经成为世界上领先的园林产品生产商之一，公司极为重视产品质量。公司的商业理念为：为园林与建筑行业开发、生产与提供电机驱动产品。此外，富世华的目标是在人体工程学、使用性、安全性及环保方面居于领先地位。这就是我们为这些领域中的产品开发许多不同功能的原因所在。

我们相信，在相当长一段时间之后，您会对我们产品的质量与性能高度满意。购买我们的任意产品，您都将随时获得专业的维修和保养帮助。如果出售本机的零售商不是我们的授权经销商，应咨询离您最近的保养厂的地址。

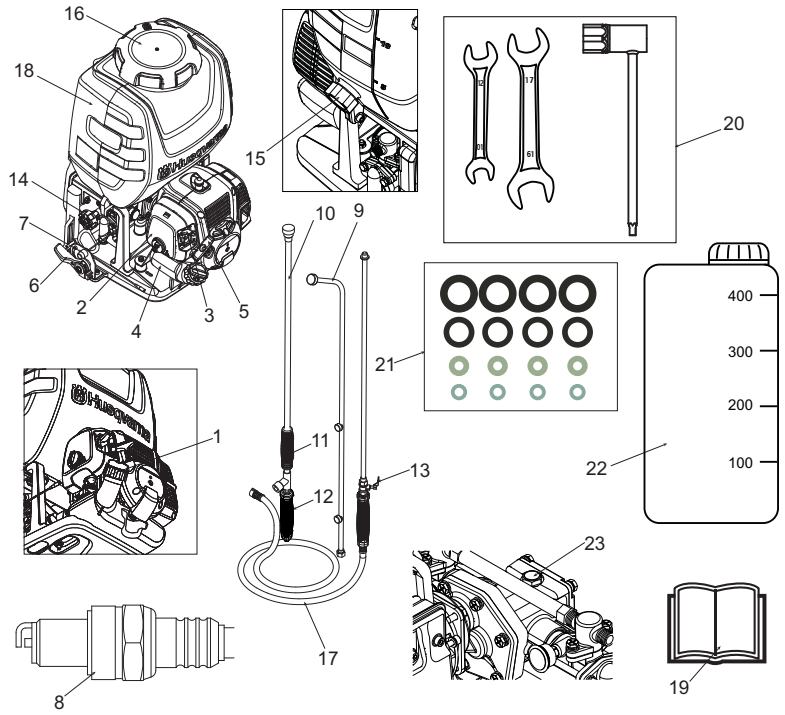
希望我们的产品让您称心如意并与您长期相伴。请将本操作手册视为重要文档。遵照其中的内容（使用、维修、维护等），机器的使用寿命及转让时的价值都将大大提高。出售本机时，请确保将操作手册转交买家。

非常感谢您使用富世华产品。

Husqvarna AB 坚持持续开发产品，因此保留修改产品设计和外观的权利，无需事先通知。



# 构造图示说明



## 构造图示说明

- |          |           |
|----------|-----------|
| 1 起动注油器  | 13 截止阀    |
| 2 空气滤清器盖 | 14 调压轮    |
| 3 阻风门杆   | 15 排液盖    |
| 4 燃油箱    | 16 药箱盖    |
| 5 起动手柄   | 17 软管组件   |
| 6 油门扳机   | 18 药箱     |
| 7 停车开关   | 19 《操作手册》 |
| 8 火花塞    | 20 装配工具   |
| 9 三喷嘴喷杆  | 21 备件     |
| 10 单喷嘴喷杆 | 22 燃油配比壶  |
| 11 前手柄   | 23 标贴     |
| 12 后手柄   |           |

# 预期用途

## 产品说明

323S15/323S25 背负式动力喷雾机是一种便携、灵活、高效的植物保护机器。

## 预期用途

本产品设计用于：

- 为各种农作物进行病虫害控制，如棉花、稻米、水果、茶、香蕉、柑橘、荔枝等；
- 城市环境保护、作物保护、温室蔬菜病虫害控制、化学除草、畜牧防疫等。

本产品还适用于丘陵地区和其他零散土地。

# 安全性

## 安全操作须知

使用本产品之前，请仔细阅读本操作手册，以确保正确操作。为顺利使用本产品，应遵循以下注意事项。在本手册的其他地方，将使用警告标志 ▲ 来提醒您留意这些注意事项。



## 使用前须知

- 本产品主要设计用于喷洒虫害防治药剂和除草剂。请勿将其用于其他目的，否则可能造成不可预见事故。
- 由于本产品会使用农药，应小心操作，误用可能会非常危险。疲劳或身体状况不佳时切勿使用本产品，因为您可能无法正确判断或准确操作，包括吃感冒药和喝酒等。此外，在任何情况下都不能允许儿童或无法理解本手册的人员使用本产品。



- 引擎尾气包含有毒的一氧化碳。请勿在室内、塑料大棚、隧道或其他通风不良的地方使用本产品。



- 在以下情况下切勿使用本产品。
  1. 产品可能掉落或其他很难握持或操作的情况。
  2. 日落或其他视野不佳的时候，以及喷药区域的安全性很难保证时。
  3. 天气恶劣时（有雨、雾、强风、闪电等）



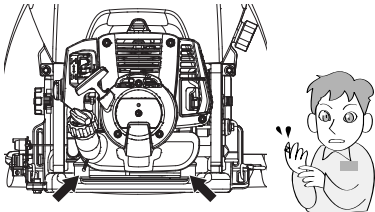
- 首次使用时，在实际喷药之前，请接受经验丰富的人员有关如何操作本产品的指导。
- 疲劳会导致注意力下降，从而增加发生意外的风险。安排工作时，请预留充足的时间，并设置 30-40 分钟的单次喷药时间与 10-20 分钟的间隔休息时间。另外，一天的喷药时间不得超过 2 小时。



- 请妥善保管此操作手册，以便将来查阅信息。
- 出售或租借本产品时，应随附此操作手册。

## ▲ 警告

- 请检查减振橡胶托是否存在裂痕或损坏。请注意，若此橡胶托出现裂痕或损坏后未及时更换，可能造成引擎在使用过程中变得松动，可能导致非常严重的人身伤害。
- 如果开裂，请及时更换。



## 警告

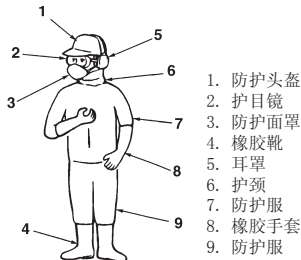
1. 如果不遵守工作时间或工作方式，可能造成肢体重复性劳损（RSI）。如果您的手指或身体其它部位感到不适、发红和肿胀，请及时就医以免恶化。
2. 为避免别人投诉噪声过大，请在工作日的早上 8 点到下午 5 点，以及周末的早上 9 点到下午 5 点操作本产品。

## 注意

查阅并遵循有关产品噪声音量和工作时间的本地法规。

### 喷药前的注意事项

- 确保使用适当的防护服、头盔、橡胶手套和橡胶靴、防护面罩、护目镜、毛巾、防护膏，以防化学药剂接触皮肤或进入肺部。喷药时请穿戴好这些防护装备，以避免任何导致伤害的风险。



- 请将化学药剂储存在可上锁的存放盒、橱柜中或儿童无法够到的其他安全位置。
  - 请仔细阅读化学药剂的使用说明，并了解其毒性大小和使用方法等。
  - 请注意将要喷药的区域，以确保不会污染水源、河流、湖泊、池塘等，以及不会对任何居民、过路人、牲畜等带来伤害。
  - 请在喷药的前一天在身体上做好准备，例如减少酒精饮料的摄入或避免熬夜工作等。
- 切勿让儿童、动物等进入喷药区域。



- 在喷药前，请做好充分准备：检查喷雾机喷嘴，检查是否存在螺丝松动或喷雾软管连接松动、燃油泄漏、液体密封垫存在缺陷或破损，或者提手损坏等异常现象。

### 搬运化学药剂时的注意事项

- 搬运化学药剂时需小心谨慎，避免化学药剂从破损的口袋、瓶子中或松动的塞子处漏出。
- 切勿使用盛装食品的容器装化学药剂。

### 搬运喷雾机时的注意事项

- 喷雾机药箱中有化学药剂或燃油时切勿搬运喷雾机，因为如果在搬运过程中遭受撞击，这些物质可能会漏出。
- 使用车辆运输喷雾机时，请使喷雾机保持直立，然后使用绳子等将其牢牢固定在货车上。请勿使用自行车或摩托车运输，这样十分危险。

## 警告

- 在喷雾器日常使用过程中，如果必须用手短距离搬运喷雾机，请使用药箱两边的扣手进行搬运操作。

### 有关燃油的注意事项

## 警告

### 采取下列注意事项可以减少火灾的发生：

- 在室外没有火花或火焰的地方混合和灌注燃油。
- 不要吸烟或者把热烫的物体放在燃油旁边。
- 加油前先关掉引擎。
- 加油前务必关闭引擎，并让它冷却几分钟。
- 加油时，请慢慢打开油箱盖，以便缓慢释放过高的压力。
- 加油之后小心拧紧燃油箱盖。
- 务必将机器移离加油区和加油站之后才可启动。
- 必须使用带防溢漏阀的油箱。
- 如果将燃油溅在机器上。先将溅出的燃油擦掉，然后让剩余的燃油蒸发掉。
- 将油箱盖四周清理干净。油箱上的污物会导致运行故障。
- 先将油箱摇匀，充分混合燃油后，再加入油箱。

### 加注化学药剂时的注意事项

- 向药箱内加注化学药剂时，请确保截止阀完全静止。
- 加注完成后，务必上紧箱盖。如未上紧，则箱盖可能在喷药过程中松动，从而存在身体接触到化学药剂的风险。

### 启动引擎时的注意事项

- 启动引擎喷药时，请确保儿童、动物等远离现场。

### 喷药时的注意事项

- 由于防护服的通风通常较差，因而会使身体感到压迫，长时间在高温情况下工作存在导致痉挛型中暑或其他疾病的风险。请避免在炎热的天气进行喷药，最好选择清晨和傍晚等温度相对较低且风量较小的时间。
- 开始工作时，请充分考虑喷药时间、风向等，确保不会给附近的居民、过路人、农作物等带来噪音干扰或化学危害。
- 喷药期间请始终握紧喷杆，并注意勿将喷嘴正对人或动物。
- 喷药时，请注意风向并始终站在上风侧，避免将化学药剂喷到自己身上。

- 如果在喷药中感到哪怕有一点不舒服，请立即就医。在就医时，请告知医生您所使用的化学药剂的名称以及使用情况等。
- 如果倾斜喷雾机，则化学药剂可能从箱盖上的通气孔漏出。喷药时请始终站稳并保持平衡。
- 引擎运行时切勿触碰火花塞或其导线，否则可能遭受电击。
- 引擎运行时或引擎刚刚停止时切勿光手触碰消音器、火花塞或其他金属部件，否则可能被高温灼伤。



喷药后的注意事项

- 请将未使用的化学药剂密封储存，并放在儿童无法触及的地方。
- 请勿直接弃置空的化学药剂容器，应在采用焚烧、掩埋或其他类似方法处理后进行丢弃。此外，请确保用于清洗喷药工具的水不会造成任何危害。
- 请全面检查和维护防护服、面罩、手套和其他防护装备，以备下次使用。
- 完成作业并收好化学药剂与喷药工具后，应立即洗澡或用肥皂洗净手、脚和面部等，并用水漱口。
- 应更换和洗净所穿的所有衣物，包括内衣。喷药时穿的衣物不能在第二天继续穿。
- 喷药后，请限制酒精摄入量并早点睡觉，以便充分休息。如果感到哪怕有一点不舒服，请尽快就医。

其他注意事项

- 若长时间参与喷药作业，请定期进行健康检查。
- 请按计划执行喷药作业，并每天记录下喷药日期和时间、所用化学药剂、靶标病虫害、作业内容、作业时长和其他详细信息。
- 选择或使用防护装备时，请牢记以下几点。
  - A. 防护服。选择穿起来凉爽而且透气性好的防水服装。此外，请穿戴让您能够舒适安全地执行喷药作业的服饰。
  - B. 头盔。使用带有帽檐、能够防水和遮盖颈部与肩部的头盔。
  - C. 手套。使用化学剂难以渗透并且在工作中出汗后也不会变滑的手套。
  - D. 橡胶围裙。混合化学药剂时，请穿上飞溅的化学药剂无法渗透的长款厚型围裙。
  - E. 护目镜、面罩等。选择适当的护目镜、面罩、橡胶靴、洗眼器和防护膏等，应关注农务安全促进组织发布的标准和提供的建议。

维护注意事项

- 为维持产品功能，请定期执行本手册中列出的维护检查。如需执行本手册中未指定的维护或零件更换作业，请咨询产品供应商或最近的富世华产品经销商。
- 引擎运行时切勿执行检查或维护作业。
- 切勿改装喷雾机或拆下引擎。否则可能导致故障或在操作过程中发生严重事故。
- 引擎刚停止时，请勿光手触摸消音器或火花塞。因为存在高温烫伤危险。
- 如需更换零件，请使用富世华原装零件或来自富世华指定品牌的零件。



标签维护

1. 请使警告标签保持干净整洁。
2. 如果警告标签变脏或脱落，请从供应商处订购新标签并进行更换。
3. 粘贴新标签时，请擦去所有灰尘与水分。

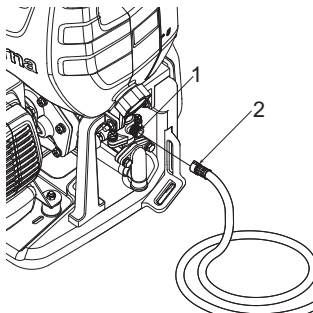
# 安装

## 装配喷雾机

1. 连接喷雾软管组件至泵出口。
2. 连接喷雾软管组件至喷杆。
3. 安装和调整扣带组件。

### 连接喷雾软管组件至泵出口

1. 连接喷雾软管至泵出口 (1) 并拧紧蝶形螺母 (2)。用手拧紧即可，因为过紧可能损坏软管接头。



### 连接喷雾软管组件至喷杆

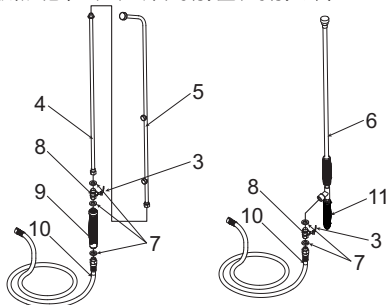
1. 三喷嘴喷杆：将延长杆 (4) 旋至截止阀 (3)。将三喷嘴喷杆 (5) 旋至延长杆 (4)。确保所有连接牢固。用手拧紧即可。
2. 单喷嘴喷杆：将单喷嘴喷杆 (6) 旋至截止阀 (3)。确保连接紧固。单喷嘴喷杆配有流量调节装置。

#### ▲ 注意

- 如果喷杆的接头发生泄漏，请使用扳手或多功能钳子重新紧固接头。
3. 将喷雾软管组件连接至喷杆后，请检查并确保喷雾软管组件上的所有连接均已牢牢紧固，包括密封件 (7)、截止阀 (8)、把手 (9)、喷雾软管 (10) 和后把手 (11)。

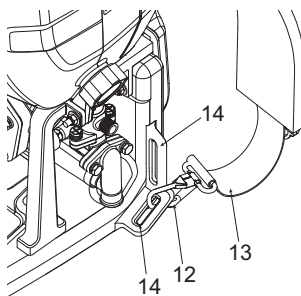
#### ▲ 注意

- 使用后把手 (11) 调节喷雾量和喷雾距离。



### 安装和调整扣带组件

1. 用挂钩 (12) 勾住固定孔眼 (14)。
2. 将背带扣带 (13) 跨到肩上。
3. 调节扣带长短至舒适平衡的位置。



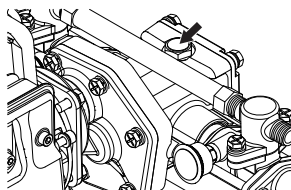
#### ▲ 注意

- 根据您的身高选择不同的固定孔眼 (14)。调节至最舒适的位置。

### 启动喷雾机前的检查

#### ▲ 注意

- 在使用机器前，必须撕掉水泵齿轮箱上的标贴。此孔为平衡气压孔，如果不拿掉标贴，可能导致水泵齿轮箱内气压不正常，从而导致齿轮油泄露。



检查机器，确保已经执行以下所有操作：

1. 使用喷雾机前务必阅读“操作员安全须知”与“操作”部分。
2. 检查软管连接和其他连接是否紧固，包括喷雾软管组件。
3. 检查并确保软管没有扭结、切口或损坏。

#### ▲ 警告

- 喷雾软管组件和接头对于设备安全十分重要。只能使用制造商推荐的软管和接头。

# 燃油

▲ 危险

汽油易燃。应避免在靠近燃油的地方吸烟或将任何火焰或火花带到这些地方。为机器加油之前，务必停止引擎并等待其冷却。选择室外空地进行加油，在启动引擎之前，请移动至距加油点至少 3 米（10 英尺）之处。



千万不可使用水冷式引擎专用的二冲程机油，即所谓的舷外机油（TCW 级）。  
千万不可使用四冲程引擎专用的机油。



推荐混合比:

- 为获得最佳的效果和性能，最好使用富世华为风冷式二冲程引擎专门开发的二冲程机油。混合比 1:40 (2.5%)。
- 这些引擎经过认证可使用无铅汽油运行。
- 建议使用90号以上汽油 如果无法取得富世华的二冲程机油，请选用其它气冷式引擎专用的高品质二冲程机油。选择机油时，请与您的代理商联络。如果使用其他二冲程机油，混合比为 1:25。
- 如果使用辛烷值低于规定值的汽油，则存在引擎温度升高的风险，从而可能导致活塞过热拉缸等引擎问题。
- 为您的健康和环境着想，建议使用洁净的无铅新汽油，以减少空气污染。
- 劣质汽油或机油可能损坏引擎的密封环、燃油管路或燃油箱。

混合燃油

▲ 警告

- 请小心搅拌。
  1. 首先量出需要混合的汽油量和机油量。
  2. 将部分汽油倒入经过核准的干净油箱内。
  3. 倒入所有机油后搅拌均匀。
  4. 倒入剩下的汽油，然后再搅拌至少一分钟。部分机油因为成分的原因很难搅动，因此为保证引擎的使用寿命，应充分搅拌。请注意，如未充分搅拌，则会增加活塞因为混合物异常稀薄而过早拉缸的风险。
  5. 请在容器外面清楚标注，避免与汽油箱或其他容器混淆。
  6. 在容器外侧标注内含物质，以便于识别。

为机器加油

1. 旋下油箱盖。将油箱盖放在无尘的地方。
2. 加注燃油至燃油箱容量的 80%。
3. 牢牢拧紧油箱盖，并擦掉机器周围溅出的燃油。

▲ 警告

1. 选择空地进行加油。
2. 启动引擎前，应远离加油点至少 3 米（10 英尺）。
3. 加油前请停止引擎。加油前，请充分搅拌容器中的混合油。

为延长引擎的使用寿命，请避免:

1. 加入的燃油中不添加机油（即加入纯汽油），这将快速对引擎的内部零件造成严重损害。
2. 乙醇汽油 - 可能导致橡胶和/或塑料零件劣化，并且可能妨碍引擎润滑。
3. 使用用于四冲程引擎的机油 - 可能导致火花塞脏污、排气口堵塞或活塞环粘滞。
4. 一个月或更长时间不用的混合燃油可能会堵塞化油器，从而造成引擎无法正常运行。
5. 如需长期存放产品，请排空并清洁燃油箱。然后运行引擎并排空化油器中的混合燃油。
6. 如需报废旧的混合油容器，只能在经授权的废弃物处理站进行废弃处理。

▲ 注意

- 有关质量保证的详细信息，请仔细阅读“有限保修”部分的说明。此外，产品不影响功能的正常磨损和更换不在保修范围。另请注意，如未遵循手册中有关混合汽油等方面的使用说明，可能致使保修无效。

# 化学药剂的加注

## 警告

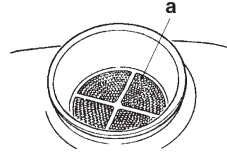
- 化学物质应正确处理，请遵循一般安全须知和容器上标注的注意事项。部分化学物质对人类和动物而言极其危险，处理错误可能导致严重中毒，甚至发生致命事故。
- 盛装化学物质的容器未使用时应与其他容器分开存放，并应放置在儿童无法触及的地方。

## 注意

- 切勿向药箱中加入未经稀释的液体。这会导致垫片和阀门的耐用性下降。
- 切勿向药箱中加入含有粗颗粒的液体，如波尔多液或石硫合剂。这会缩短机器的使用寿命。

## 加注步骤

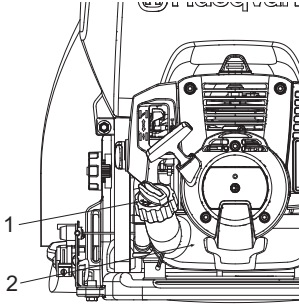
1. 请使用桶或其他适当的容器，将化学药剂稀释至所需浓度。
2. 将喷雾机放在稳定的平坦表面，然后取下药箱盖。
3. 经过过滤器 (a) 向药箱中加入化学药剂。
4. 加注完成后，请拧紧药箱盖。



# 操作

## 警告

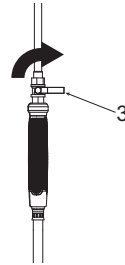
高度易燃。加油时，请关闭引擎并远离明火。  
向油箱 (2) 中加入燃油后拧紧油箱盖 (1)。



## 启动引擎

## 注意

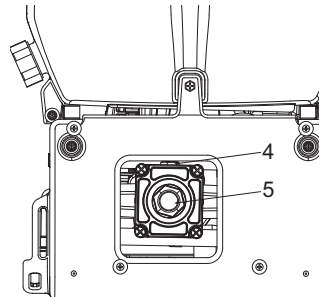
- 启动引擎前，确保截止阀 (3) 已完全归位。启动引擎时，若截止阀仍旧处于旋出状态会很危险，因为化学药剂可能在引擎启动时从喷嘴喷出。



- 要启动引擎，请将喷雾机放在稳定的平坦表面或平台上。如果喷雾机不稳定，启动时的反作用力等因素可能造成喷雾机跌落。

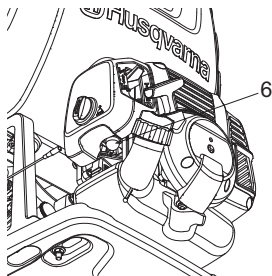
## 注意

- 引擎运行时，切勿让药箱中的化学药剂或水流出。如果引擎干运转，可能造成喷雾泵损坏。
- 确保加注齿轮油至检查窗口 (5) 中部。如果油量不够，请旋松上部螺栓 (4)，然后加注齿轮油。



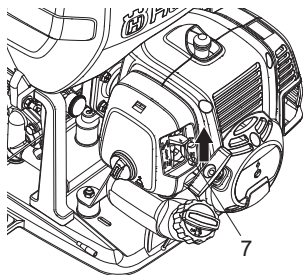
1. 用手指按化油器底部的启动注油器 (6) 数次，直至燃油充至启动注油器。





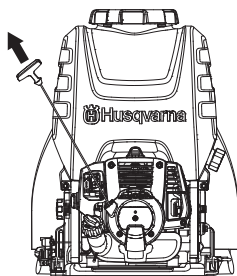
### ▲ 注意

- 只要燃油箱中仍有燃油，停止引擎后立即重新启动时，无需运行启动注油器。
2. 向上拨动空气滤清器右侧的阻风门杆（7），直至其处于“关闭”位置。



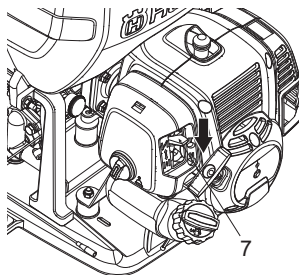
### ▲ 注意

- 停止引擎后重新启动时，请将阻风门杆置于“打开”位置。
  - 启动暖引擎时，切勿关闭阻风门。暖（热）引擎可能是：
    - 刚刚停止运行的引擎。
    - 处于高环境温度下的引擎。
3. 从“怠速”位置移动油门扳机至 1/2 行程处。切勿增大油门，除非机器已被操作员背在背上，而且已准备好进行喷药。
  4. 将喷雾机放在稳定的地方，用左手固定住药箱，同时用右手拉出启动手柄。启动手柄应首先拉出一点，然后在感觉到阻力时再快速猛力拉出。



### ▲ 注意

- 切勿将绳子全部拉出或者松开启动手柄致使绳子绕回，否则可能造成启动机故障。
5. 听到爆破声后，阻风门杆置于“半开”位置。
  6. 启动引擎后，请完全打开阻风门杆（7），并在怠速下预热 2-3 分钟。



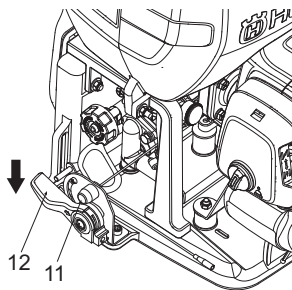
### ▲ 注意

- 如果在阻风门关闭的情况下连续多次拉出绳子，火花塞会被淹缸，从而造成引擎无法启动。在这种情况下，应立即拔出火花塞，将电极擦干，然后重复启动步骤。

### 停止引擎

### ▲ 警告

- 在发生紧急情况时应立即停止引擎。
1. 完全降低油门扳机（12），然后让引擎低速运行 1-2 分钟以使引擎冷却。
  2. 按住喷雾机壳体左侧的停车开关（11），直至引擎完全停止。



### ▲ 注意

- 除非遇到紧急情况，否则应尽量避免通过扳动阻风门来停止引擎。



## 喷药

### 警告

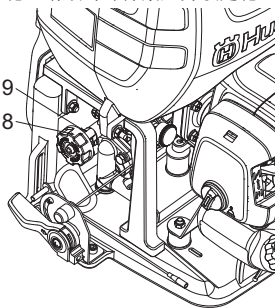
- 请正确使用喷雾机，并遵循本手册中给出的注意事项。
- 将喷雾机背到背上之前，检查并确保药箱盖和燃油箱盖已拧紧。
- 喷药时，切勿将喷嘴正对您的面部或正对其他人和动物等。
- 如果过度倾斜喷雾机，化学药剂或燃油可能从箱盖上的通气孔漏出。使用时应尽量保持机器直立。

### 注意

- 如果在喷药时药箱内的药剂用完，应立即降低引擎的运转速度。干运转引擎可能导致喷药泵损坏。
- 请避免使用多个喷嘴、喷射式喷嘴或其他喷射量较大的喷嘴，因为压力不足会降低喷药效率。

### 喷药步骤

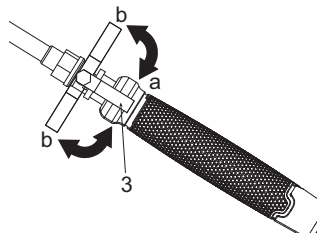
1. 起动引擎，
2. 设置调压轮（8），使之适合进行喷药。调压轮用于控制泵所产生的压力大小。设置压力后，多余的压力会返回药箱，以确保喷杆具有最大输出压力。要设置压力，请执行以下步骤：
  - 顺时针转动以增大压力，或者逆时针转动以降低压力。
  - 要锁定调压轮，请顺时针拧紧压力锁定轮（9）。



### 注意

- 产品交付前压力已正确设置，如非必要，切勿更改此压力设置。
3. 将喷雾机背到背上。
  4. 调节背带长度。
  5. 打开截止阀。
  6. 提高引擎转速，化学药剂开始以喷雾形式从喷嘴喷出。

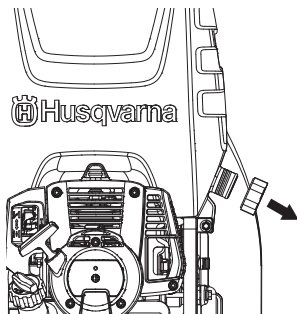
7. 停止工作时，先降低引擎转速至怠速位置并按下停车开关，然后关闭截止阀。



- a. 打开  
b. 关闭

### 完成喷药后清洁

1. 旋开排液盖，将药箱内剩余的化学药剂转移到适当的容器内，并小心处理，注意安全。



2. 将大约 5 升清水倒入药箱中，用喷嘴喷洒 2-3 分钟，然后排空药箱内剩余的水。

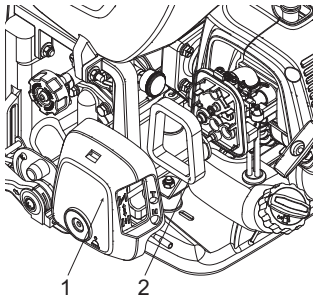
# 维护

▲ 警告

- 对机器执行任何维护作业之前，确保引擎已经停止并冷却。触碰滚烫的消音器可能带来严重的人身伤害。
- 切勿改装喷雾机或拆下引擎。
- 更换零件时，请使用富世华原装零件或富世华指定的零件。

### 检查空气滤清器

- 每工作 25 小时后，请拆下空气滤清器盖（1）并检查空气滤清器（2）。如果空气滤清器过脏，请使用含有中性清洁剂的水仔细清洗；等待滤清器干透之后，将其装回原来的位置。
- 如果空气滤清器（2）变形或损坏，请使用新的滤清器更换。

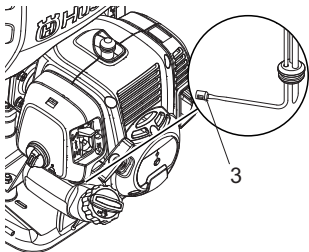


▲ 注意

- 空气滤清器堵塞会降低引擎效率。此外，如果不使用滤清器或长期在滤清器已经变形或损坏的状态下工作，引擎内部会遭受异常磨损。

### 检查燃油滤清器

- 每工作 25 小时后，请排空燃油箱，卸下燃油箱上的燃油滤清器（3），然后清除所有灰尘。如果滤清器严重堵塞，请使用新滤清器更换。



▲ 注意

- 如果燃油滤清器堵塞，则引擎速度可能受限，或者可能出现速度波动。
- 如果引擎在没有安装燃油滤清器的情况下工作，灰尘会聚集在化油器内，从而导致化油器发生故障。

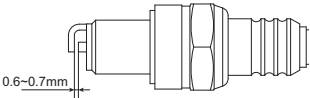
### 检查火花塞

▲ 警告

- 操作喷雾机之后，切勿用手直接触碰火花塞，因为存在高温烫伤危险。



- 每工作 25 小时后，请拆下火花塞并用钢丝刷或类似工具清除电极上的灰尘。
- 正确的电极间隙为 0.6 至 0.7 毫米。
- 更换火花塞时，请使用指定零件。



▲ 注意

- 如果吸收了过多燃油或者所用机油的质量太差，火花塞电极可能变脏，使得引擎很难起动。
- 请注意，使用非指定的火花塞可能导致引擎无法正常运行，或者致使引擎过热和损坏。
- 要安装火花塞，首先用手将火花塞拧紧，然后用套筒扳手再拧紧四分之一圈。

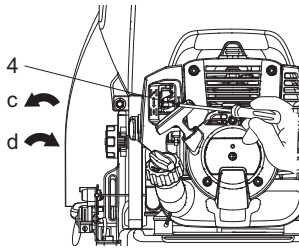
紧固扭矩：  
14.7 至 21.6 N.m.  
(150 至 220 kgf-cm)

### 调节引擎速度

- 虽然引擎在出厂前已经过调节，但反复使用后有时可能需要重新调节或维护。对于以下未列出的检查和维护操作，请咨询原供应商。

### 调节怠速

- 油门扳机完全降下时，如果引擎熄火或泵在怠速位置持续运动，应使用化油器左侧的怠速调节螺钉（4）重新调节引擎速度。



c. 减速  
d. 增速

#### 转动怠速调节螺钉:

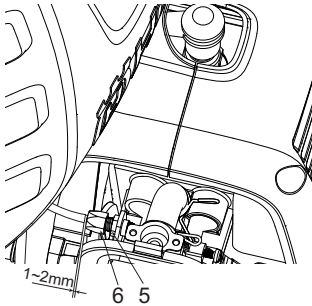
- 逆时针转动以降低引擎速度
- 顺时针转动以提高引擎速度

#### ▲ 注意

- 调节怠速前请预热引擎。

#### 调节油门拉线间隙

- 油门拉线间隙应为 1 至 2 毫米。
- 使油门扳机完全复位后，用手指在化油器端轻轻拉动油门拉线。
- 如果间隙过大或过小，应重新调节拉线固定螺母（6）的位置。
- 旋松锁紧螺母（5）并顺时针转动（旋入）固定螺母（6），以增大间隙；逆时针转动（旋出）螺母以减小间隙。
- 调节完成后，拧紧锁紧螺母以紧固拉线的固定螺母。



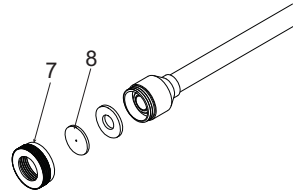
#### 检查喷嘴

喷嘴堵塞可能造成喷药压力和流速下降。所有多余的压力将回到药箱内。

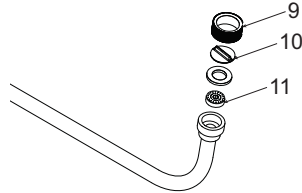
要纠正该问题，应立即按以下说明

清洁喷头：

1. 停止引擎并将喷雾机从操作员背上卸下。
2. 将喷杆与喷药软管组件断开。
3. 要拆下喷嘴堵塞（7/9），请逆时针转动喷嘴堵塞。
4. 对于三喷嘴喷杆，请检查并清洁喷头（8/10）和金属滤网（11）是否有任何异物造成喷嘴堵塞或限流。如有损坏，请予以更换。
5. 重新安装喷嘴堵塞和已经组装好的喷杆与喷药软管组件，并用手拧紧。



单喷嘴喷杆



三喷嘴喷杆

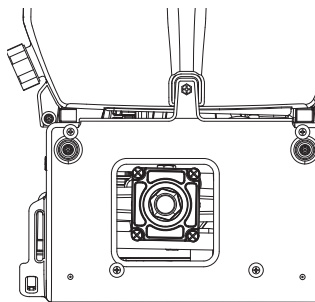
#### 检查泵的油位

每次使用前都应检查油位。

1. 确保将喷雾机置于平整表面。
2. 要触及泵的后部，仅需解开顶部背垫的纽扣。
3. 通过机油观察窗口查看油位是否为总容量（约 130 毫升）的 1/3-1/2。
4. 使用前请重新安装和重新扣上背垫。

#### ▲ 注意

- 切勿尝试对该泵的机油进行维护。
- 泵在出厂前已经过预润滑和密封。如需加油，请前往授权经销商处或服务中心。



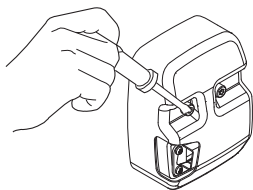
### 检查消音器

#### ▲ 警告

定期检查消音器是否存在紧固件松动、损坏或遭受腐蚀等问题。如果发现任何尾气泄漏的迹象，请立即停止使用机器并进行维修。否则可能导致引擎起火。

每运行 100 小时后需执行的操作

1. 拆下消音器，将螺丝起子插入通气口内，擦掉积聚的碳。同时擦除消音器排气口和气缸排气口任何积聚的碳。
2. 拧紧所有螺丝、螺栓和接头。
3. 查看离合器衬片和离合器鼓之间是否存在任何油或油脂，如果有，请使用无铅纯汽油擦掉。



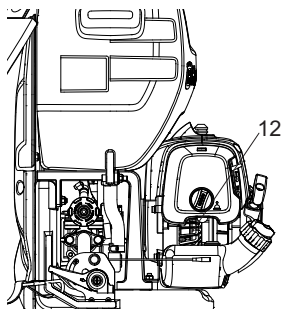
### 检查空气散热风扇

#### ▲ 警告

引擎刚停止时，请勿光手触摸气缸、消音器或火花塞。引擎运行期间可能变得滚烫，这样会导致严重灼伤。在使用前检查机器以确保其正常运行时，请检查消音器周围的区域，并清除附在喷雾机上的所有异物。否则可能造成消音器过热，从而导致引擎起火。使用前始终确保消音器的整洁，确保不存在任何异物和其他废弃物。每使用 25 小时后，请检查进气冷却孔和气缸冷却片周围的区域是否堵塞。请注意，需要拆下上盖和下盖才能查看气缸上部。

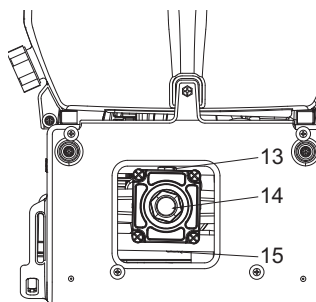
#### ▲ 注意

- 如果废弃物卡住造成进气冷却孔（12）周围或气缸散热片受堵，可能导致引擎过热，从而使喷雾机的零件发生机械故障。



### 更换齿轮油

- 首次使用 25 小时后，请更换齿轮油。之后应每使用 100 小时后更换（SAE90，130cc）。



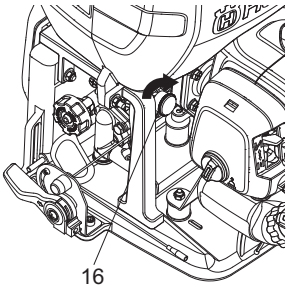
(13) 上部螺栓

(14) 检查窗口

(15) 排放螺栓

检查油脂杯

- 打开油脂杯上盖（16），检查润滑脂量。如果润滑脂减少，应重新加注。



维护步骤	每天	每周	每月	注意事项
整体				
检查整台机器是否损坏或有物质泄漏或溢出	√			
检查所有可触及的紧固件	√			拧紧或根据需要更换
检查所有螺丝/螺母/螺栓	√			拧紧或根据需要更换。不包含调节螺丝。
检查软管和接头	√			
检查是否存在碎屑	√			
引擎				
检查并清洁燃油箱		√		
检查并清洁燃油滤清器		√		
检查并清洁空气滤清器		√		
检查油门扳机和停车开关的工作情况	√			
排空燃油箱	√			
为柱塞涂抹润滑脂	√			
清洁火花塞或调节火花塞间隙		√		确保该间隙为 0.6 至 0.7 毫米（0.025 英寸）。必要时更换
检查消音器是否损坏		√		必要时更换
清洁消音器和气缸排气口			√	
清洁气缸散热片和进气散热风扇			√	

维护步骤	每天	每周	每月	注意事项
药箱和喷嘴				
检查/清洁药箱过滤器	√			堵塞时清洁。如损坏或磨损，则必须更换。
排空并清洁药箱	√			
检查喷嘴	√			
泵				
检查泵机油的油位			√	
更换齿轮油			√	
检查油脂杯		√		必要时加注

## 废弃处理和存放

### 废弃处理

对机器以及机器内的燃油或机油进行废弃处理时，请遵循本地法规。

### 存放

▲ 警告

- 排放燃油时，注意切勿使之溢出。如有燃油溢出，请擦拭干净。此外，请确保拧紧存放容器盖。

▲ 注意

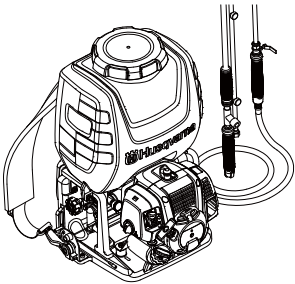
- 如果引擎内长期留有燃油，则化油器内部可能受堵，从而造成引擎故障（起动故障和输出不足）。
- 存放期间，请稍微拧松药箱盖。如果拧得过紧，垫片可能变形。

完成所有作业流程后，若计划长时间不用，则应执行以下存放前保养操作，以防存放时间内发生的变化带来问题。

- 清洁药箱和喷嘴（请见第 13 页）。
- 去除喷雾机上的灰尘，检查是否有任何损坏或松动，如果发现任何异常，请彻底纠正，以便下次使用。
- 排空燃油箱。
- 起动引擎并让其以怠速运行，直至化油器内的所有燃油耗尽，且引擎自然停止。
- 拆下火花塞，并向引擎内部滴几滴（1 至 2 cc）二冲程引擎机油。拉动起动绳 2 或 3 次之后，将火花塞装回原位，然后在压缩位置停止。
- 为油门扳机和其他金属零件涂抹防锈油之后，请将喷雾机盖住，然后存放在室内湿度低的位置。

▲ 注意

- 日常不使用机器并存放机器时，请保持机器竖立状态，否则会造成泵齿轮箱上齿轮油从平衡气压孔中溢出。



故障检修

问题	可能的原因	解决办法
引擎无法起动	电极火花塞受潮或遭受污染	清洁或更换火花塞
	火花塞绝缘体裂开	更换火花塞
	火花塞间隙不正确	调节间隙至 0.6 – 0.7 毫米
	引擎被浸没	在阻风门打开的情况下起动引擎，然后全开油门消耗多余的燃油
	燃油不合适或旧燃油	排空燃油，更换为正确的燃油/机油混合物
	油箱内无燃油	加入正确的燃油/机油混合物
动力不足	空气滤清器堵塞	清洁并润滑空气滤清器
	燃油管/通道堵塞	请联系服务中心或授权经销商
	消音器内有积碳	请联系服务中心或授权经销商
	使用不合适或旧的燃油	排空燃油，更换为正确的燃油/机油混合物
	活塞拉缸	请联系服务中心或授权经销商
	机器使用过度	适当运行 – 切勿超负荷运行
在操作过程中引擎停止	开关弹起	重新启动引擎
	火花塞短路	清洁或更换火花塞
	活塞上有刮痕	请联系服务中心或授权经销商
	燃油箱无油	加入正确的燃油/机油混合物
	化油器或燃油箱堵塞	请联系服务中心或授权经销商
引擎很难停止	停机拉线从开关上断开	将停机拉线连接至开关
	引擎过热	请联系服务中心或授权经销商
机器主体	引擎和/或泵底座松动	重新拧紧引擎和/或泵底座的螺丝
	油箱泄漏	请联系服务中心或授权经销商
	管子连接处泄漏	重新紧固管箍，如有损坏，请予以更换
泵无法喷射	药箱内没有稀释的化学药剂	加注药箱
	泵内的阀门受堵	请联系服务中心或授权经销商
	截止阀受堵	清洁或更换截止阀
	压力设置不正确 – 过低	调节调压轮
	泵遭受磨损或损坏	请联系服务中心或授权经销商
	喷杆喷嘴堵塞	清洁喷嘴
喷药压力不足	泵速或压力设置过低	调节泵速和调压轮
	喷杆喷嘴堵塞	清洁喷嘴
	泵密封件和/或 V 形填料密封件磨损或损坏	请联系服务中心或授权经销商
	泵内的单向阀堵塞	请联系服务中心或授权经销商
	离合器打滑	更换离合器
	润滑不足	为柱塞涂抹润滑脂
	喷药软管破裂	请联系服务中心或授权经销商
	喷杆喷嘴磨损或损坏	请联系服务中心或授权经销商

如果运行仍旧不畅，请联系最近的授权经销商或服务中心。

技术参数

产品型号		323S15	323S25
泵	类型	往复式	
	工作压力 (MPa) *	1.5-3.0	
	最大压力 (MPa) *	3.5	
	最大工作流量 (L/min) *	7	
	额定压力 (MPa) / 额定流量 (L/min) *	2.5/4	
引擎	类型	单气缸风冷二冲程汽油引擎	
	引擎排量 (cc)	26.2	
	最大功率/转速 (kW/r/min) *	0.75/7500	
	引擎运转速度 (r/min) **	≥7000	
	怠速 (r/min)	2700-3300	
	燃油类型	汽油/机油混合物	
	机油	二冲程引擎机油	
	混合比	25:1, 40:1 (仅限富世华原装机油)	
	起动器系统	省力起动器	
	火花塞	CMR7H TORCH	
主机外形尺寸 (mm) 长*宽*高 (L*W*H):		395*386*556	400*386*632
药箱容量 (L)		15	25
总重量: 空药箱 (kg)		10.2	10.6
燃油箱容量 (L)		0.6	0.6

▲ 注意

\* 依据制造商测试标准测得的额定值  
\*\* 制造商特意将引擎转速设置为 7000-8000 rpm, 旨在  
优化引擎和泵的性能与使用寿命  
改进产品时可能更改以上规格, 恕不另行通知。

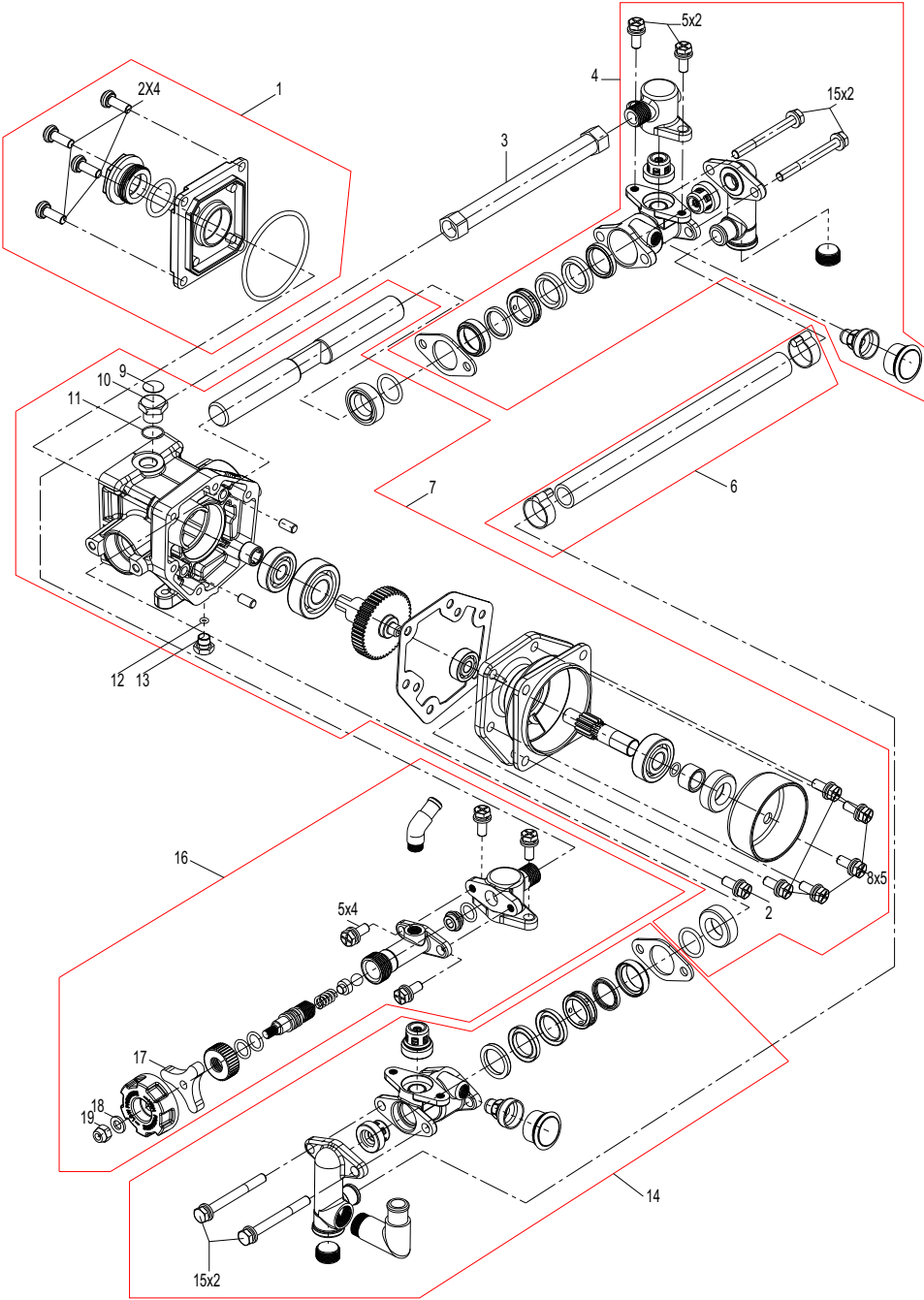


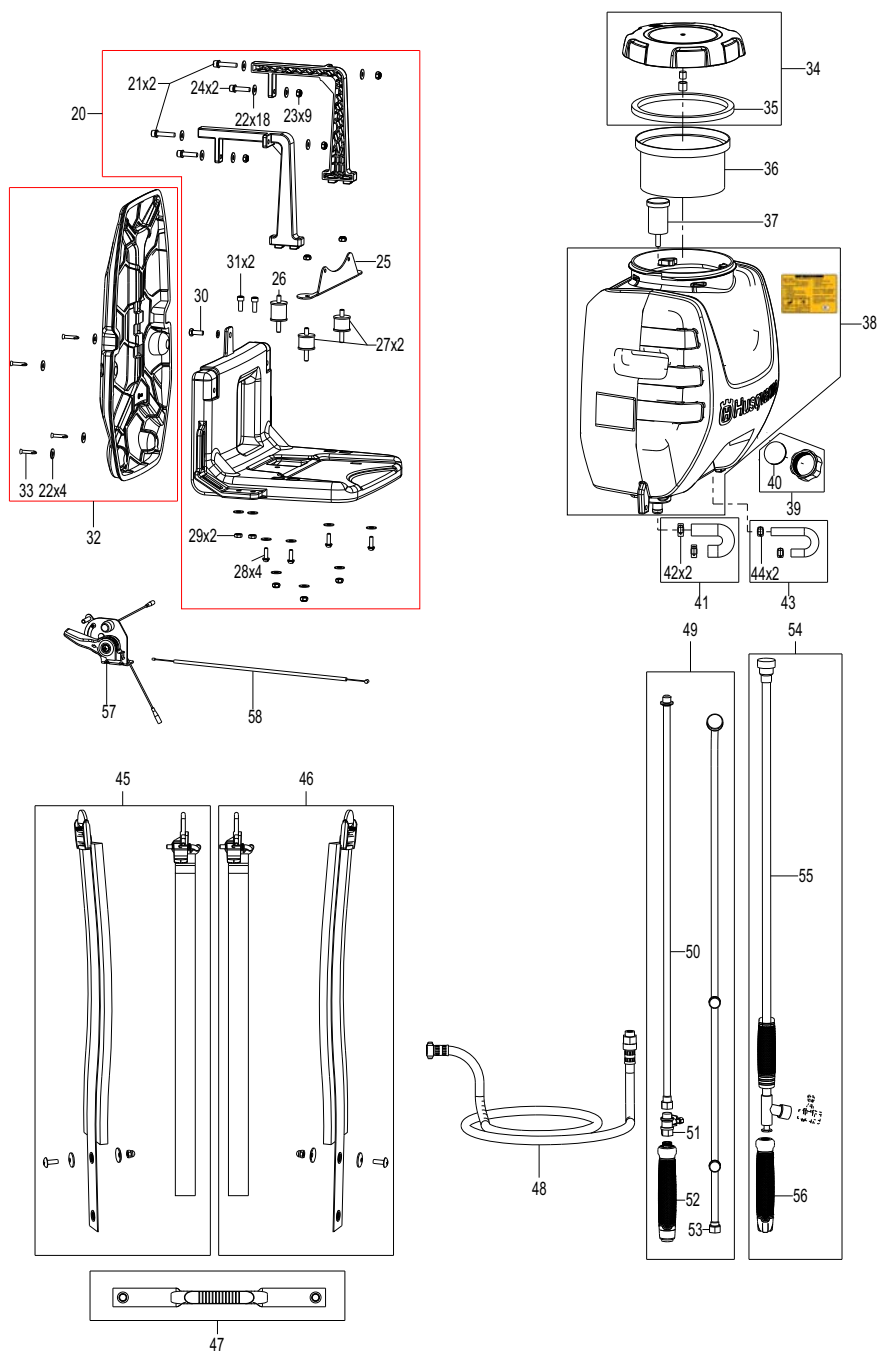
# 装运清单

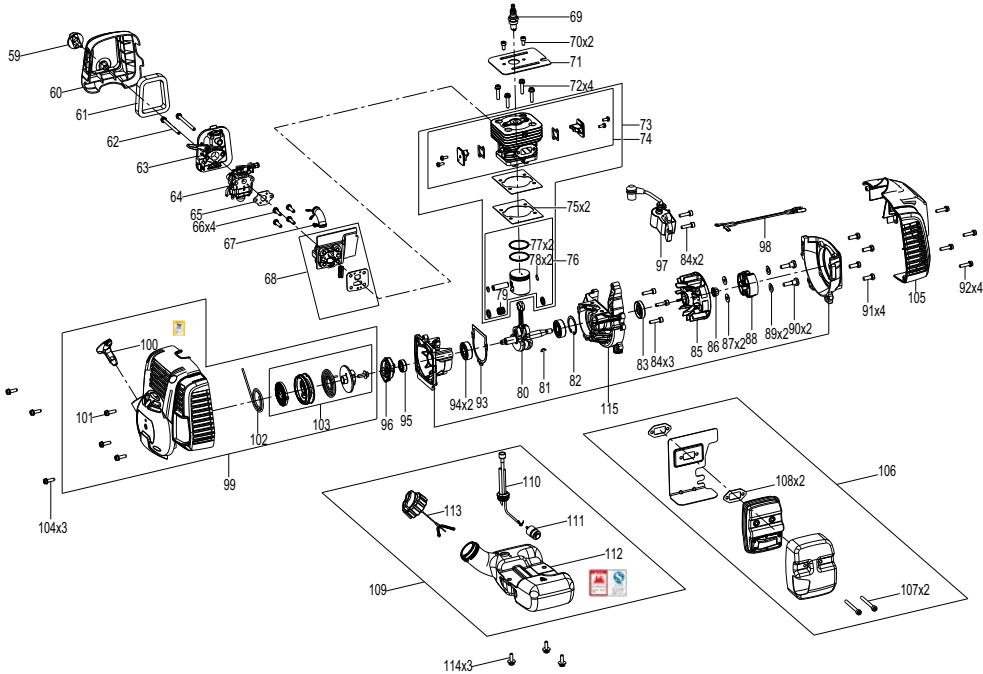
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产品名称	数量
背负式动力喷雾机	1
高压管	1
加长杆	1
三嘴喷杆	1
直喷杆	1
随机工具包	1
说明书	1
燃油配比壶	1
护目镜	1
口罩	1

零部件图解及目录







参考编号	零件名称	产品代码	技术规格	数量
1	盖组件	590211702		1
2	螺栓	589942301	M6x16	4
3	耐高压管	589833901		1
4	右侧泵体组合	590211802		1
5	螺栓	589941901	M6x14	2
15	螺栓	589942101	M6x70	2
6	管组件	593014101		1
7	变速箱	589831302		1
2	螺栓	589942301	M6x16	1
8	螺栓	589942501	M6x18	5
9	标签	589832601		1
10	加油螺钉	592992901		1
11	O型圈	589832502		1
12	O型圈	589832302		1
13	加油螺钉	592992801		1

参考编号	零件名称	产品代码	技术规格	数量
14	左侧泵体组合	590212002		1
15	螺栓	589942101	M6x70	4
16	阀组件	589828602		1
5	螺栓	589941901	M6x14	4
17	旋钮	592992701		1
18	垫圈	589831101		1
19	锁紧螺母	503222007		1
20	底座组合	590212402		1
21	螺丝	589952401	M6x30	2
22	平面垫圈	589953001	16x6x1.3	18
23	螺母	574594401		9
24	螺丝	589952402	M6x25	2
25	支架	592886301		1
26	减震器	589546001		1
27	减震器	589545901		2
28	螺丝	589971601	CRPANT ST4.8x16	4
29	六角螺母	589971701		2
30	螺栓	589971501	M6x16	1
31	螺丝	504456701	IHSCM M6x16	1
32	背垫组合	590212501		1
22	平面垫圈	589953001	16x6x1.3	4
33	螺丝	590161901	CRPANT ST4.2X25	4
34	药箱盖	589325101		1
35	垫片	589834501		1
36	过滤器	589542201		1
37	过滤器	589545601		1
38	药箱	582498801	15L	1
	药箱	593019201	25L	1
39	放水口盖组合	589545501		1
40	垫片	589834701		1
41	进水管	593014301		1
42	管夹	592993001		2
43	回流管	593014401		1
44	管夹	592993201		2

参考编号	零件名称	产品代码	技术规格	数量
45	左肩背带	590212601		1
46	右肩背带	590212701		1
47	背带提手	590019601		1
48	高压管	589547201		1
49	三孔喷枪总成	589547601		1
50	杆组件	589547401		1
51	阀组件	589547301		1
52	单手柄	582620601		1
53	杆组件	589547501		1
54	直喷枪总成	589547701		1
55	喷枪	589789801		1
56	手柄	582620701		1
57	停车开关组合	589545701		1
58	油门线	589834802		1
59	旋钮	537213208		1
60	空滤盖	582624801		1
61	空滤海绵	575309501		1
62	螺丝	578303901		2
63	过滤器支架	582668301		1
64	化油器	584274102		1
65	垫片	575310901		1
66	螺丝	584956201		4
67	进气管	593019001		1
68	绝缘装置与垫片	593019101		1
69	火花塞	578410201		1
70	螺丝	575308901		2
71	板	575306701		1
72	螺丝	584956001		4

参考编号	零件名称	产品代码	技术规格	数量
73	气缸套件	593014801		1
74	气缸组件	593589001		1
75	垫片	575307802		2
76	活塞组件	593014601		1
77	活塞环	575307901		2
78	卡簧	575308101		2
79	滚针轴承	575308401		1
80	曲轴总成	575308601		1
81	按键	574727901		1
82	卡簧	735313110		1
83	密封件	575312101		1
84	螺丝	584955901		5
85	飞轮	591046601		1
86	螺母	574223401		1
87	垫圈	575313501		2
88	离合器总成	575313601		1
89	弹簧垫圈	575313701		2
90	螺丝	513189601		2
91	螺栓	589971501	M6x16	4
92	螺丝	525755102	ITXSCFM	4
93	垫片	575311902		1
94	轴承	574726601		2
95	密封件	574222101		1
96	桥接件	585296501		1
97	点火器	585565501		1
98	停车线组合	582625701		1
99	起动装置总成	593015601		1
100	起动手柄	575489501		1
101	螺丝	525755101	ITXSCFT	3
102	起动绳	578091102		1
103	驱动总成	593176401		1
104	螺丝	573925801	ITXSCFT	3
105	引擎盖	582625201		1
106	消音器系统	592732001		1

参考编号	零件名称	产品代码	技术规格	数量
107	螺丝	584956301		2
108	垫圈	585613001		2
109	油箱组合套件	593015401		1
110	油管组合	593015501		1
111	燃油过滤器	574227001		1
112	油壶	585094601		1
113	油箱盖组件	580926802		1
114	螺丝	575313301		3
115	曲轴箱组件	593014901		1



# KEY TO SYMBOLS

## Symbols



**WARNING!** The product can be a dangerous tool if used incorrectly or carelessly, which can cause serious or fatal injury to the operator or others.



Read owner's manual before operating this machine.



This product is in accordance with applicable 3C certification



Production permit



Always wear:

- Breathing mask
- Protective glasses
- Work cap
- Protection clothing

to prevent pesticides from spraying onto the body.



Always stop the engine during daily inspection.  
Beware of hot surface burn your fingers or palms.



Keep a safe distance from the whole machine.  
Beware of high pressure liquid sprayed onto your body.



Keep fire far away from the refueling port.  
Stop the engine when refuelling.



The port to refuel the MIX GASOLINE



The direction to close the choke



The direction to open the choke



Primer



**Never modify your machine.**  
**We won't warrant the machine, if you use the remodeled power sprayer or if you don't observe the proper usage written in the manual.**

## Type plate

产品名称:	背负式动力喷雾机	Husqvarna®
产品型号:	323S15	
毛重:	12.5Kg	
外形尺寸:	42X39X66cm	
执行标准:	GB10395.6-2006	
数量:	1	
制造商名称: 富世华全能(常州)机械有限公司		
地址: 江苏省常州市新北区黄河西路 366号		
电话:	021-23570700	0519-85103888
传真:	021-23570701	0519-85137187
EAN13/UPC		
7 391736 205542		
Product No. (240) / Serial No. (21)		
(240)0967078301(21)XXXXXX		

Row 1: Product name	Row 2: Product model
Row 3: Product weight	Row 4: Product size
Row 5: Implementation standards	
Row 6: Quantity	Row 7: Manufacturer
Row 8: Manufacturer address	
Row 9: Manufacturer telephone	
Row 10: Manufacturer fax	
Row 11: Universal Product Code	
Row 12: Product No. / serial No.	

Husqvarna® 富世华全能(常州)机械有限公司	
机器名称	背负式动力喷雾机
机器型号	323S15
额定功率/转速	0.75Kw/7500r/min
工作压力	1.5-3.0MPa
生产日期	
	20171500001

Row 1: Manufacturer	Row 2: Product name
Row 3: Product model	Row 4: Rated power / speed
Row 5: Working pressure	Row 6: Date of manufacture

环保信息标签	
达到国家GB 26133-2010第 II 阶段排放标准	生产日期: 201707
机械环保信息公开编号: XXXX XXXX XXXX XXXX XXXX	
发动机环保信息公开编号: XXXX XXXX XXXX XXXX XXXX XXXX	
基本信息	名称: 背负式动力喷雾机
型号: 323S25	机械类型: 农业机械
商标: Husqvarna	
发动机型号: GZ26A	
发动机制造商名称: 富世华全能(常州)机械有限公司	
排放控制耐久期: 50小时	
环保关键部件: 化油器、催化剂	

Row 1: Nameplate
Row 2: Emission standard, Manufacture date
Row 3, 4: Machinery & Engine environmental protection information public number
Row 5: Basic information
Row 5: Durability of emission control period
Row 6: Key components of environmental protection

# CONTENTS

**KEY TO SYMBOLS**

Symbols..... 29

**CONTENTS**

Note the following before starting:..... 30

**INTRODUCTION**

Dear Customer, ..... 31

WHAT IS WHAT? ..... 32

**INTENDED USE**

Product description..... 33

Intended use..... 33

**SAFETY**

For safe operation ..... 33

**ASSEMBLY**

To assemble the sprayer..... 36

To connect the spray hose assembly and the pump outlet..... 36

To connect the spray hose assembly and spray rods ..... 36

To install and adjust the straps assembly with the unit..... 36

Checklist before starting the sprayer ..... 36

**FUEL**

To mix the fuel..... 37

To fuel the unit..... 37

**CHEMICAL FILLING**

Procedure for filling ..... 38

**OPERATION**

To start the engine ..... 38

To stop the engine..... 39

To spray ..... 40

Spraying procedure ..... 40

Cleaning after completion of spraying ..... 40

**MAINTENANCE**

To check the air cleaner ..... 41

To check the fuel filter ..... 41

To check the spark plug ..... 41

To adjust the engine speed ..... 41

To check spray nozzle..... 42

To check the pump oil level..... 42

To check the muffler..... 43

To check the air cooling fan ..... 43

To replace the gear oil..... 43

To check the grease cups ..... 44

**DISPOSAL AND STORAGE**

Disposal..... 45

Storage..... 45

**TROUBLESHOOTING**

**TECHNICAL DATA**

**SHIPPING LIST**

**SPARE PART**

**Note the following before starting:**

Please read the operator's manual carefully.

Warning labels bearing the ▲ mark on the product and in this Manual refer to important safety matters. Please familiarize yourself with them and observe them well.

If a warning label on the product becomes soiled or detached, please order a replacement label from your dealer and attach it in the requisite place.

**PRECAUTIONS**

In this Operator's Manual, precautions that are considered to be particularly important are indicated as follows.

**WARNINGS IN THE MANUAL**

**▲ DANGER**

Failure to avoid will result in death or serious injury

**▲ WARNING**

Failure to avoid may result in death or serious injury.

**▲ NOTE**

Failure to avoid may result in moderate or mild injury.

# INTRODUCTION

---

## **Dear Customer,**

Congratulations on your choice to buy a Husqvarna product! Husqvarna is based on a tradition that dates back to 1689, when the Swedish King Karl XI ordered the construction of a factory on the banks of the Husqvarna River, for production of muskets. The location was logical, since water power was harnessed from the Huskvarna River to create the waterpowered plant. During the more than 300 years in existence, the Husqvarna factory has produced a lot of different products, from wood stoves to modern kitchen appliances, sewing machines, bicycles, motorcycles etc. In 1956, the first motor driven lawn mowers appeared, followed by chain saws in 1959, and it is within this area Husqvarna is working today.

Today Husqvarna is one of the leading manufacturers in the world of forest and garden products, with quality as our highest priority. The business concept is to develop, manufacture and market motor-driven products for forestry and gardening, as well as for the building and construction industry. Husqvarna's aim is also to be at the front edge for ergonomics, usability, security and environmental protection. That is the reason why we have developed many different features to add to our products within these areas.

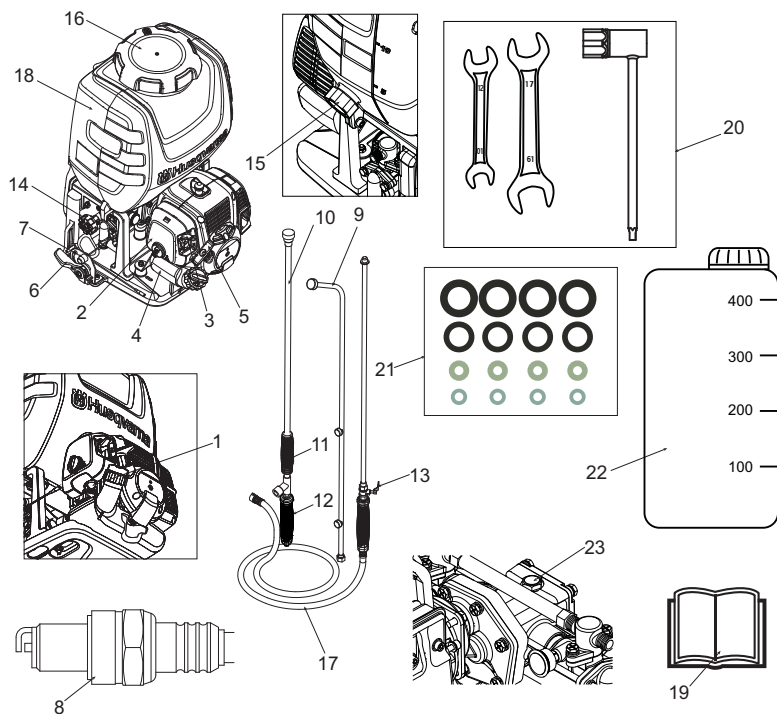
We are convinced that you will appreciate with great satisfaction the quality and performance of our product for a very long time to come. The purchase of one of our products gives you access to professional help with repairs and service whenever this may be necessary. If the retailer who sells your machine is not one of our authorised dealers, ask for the address of your nearest service workshop.

It is our wish that you will be satisfied with your product and that it will be your companion for a long time. Think of this operator's manual as a valuable document. By following its content (usage, service, maintenance, etc), the life span and the second-hand value of the machine can be extended. If you sell this machine, make sure that the operator's manual is passed on to the buyer.

Thank you for using a Husqvarna product.

Husqvarna AB has a policy of continuous product development and therefore reserves the right to modify the design and appearance of products without prior notice.

# WHAT IS WHAT?



## What is what?

- |    |                         |    |                          |
|----|-------------------------|----|--------------------------|
| 1  | Primer                  | 13 | Cock valve               |
| 2  | Air cleaner cover       | 14 | Pressure regulating dial |
| 3  | Choke lever             | 15 | Drain cap                |
| 4  | Fuel tank               | 16 | Sprayer tank cap         |
| 5  | Starter knob            | 17 | Hose assembly            |
| 6  | Throttle lever          | 18 | Spray tank               |
| 7  | Stop switch             | 19 | OM                       |
| 8  | Spark plug              | 20 | Assembly tools           |
| 9  | 3-nozzle spray rod      | 21 | Spare parts              |
| 10 | Single nozzle spray rod | 22 | Fuel oil mixing tank     |
| 11 | Front handle            | 23 | Decal                    |
| 12 | Rear handle             |    |                          |

# INTENDED USE

## Product description

323S15/323S25 knapsack power sprayer is a portable, flexible and efficient plant protection machine.

## Intended use

This product is designed and intended for:


- pest control of various crops and economic crops

pests, such as cotton, rice, fruit, tea, bananas, citrus, litchi;

- city environmental protection, crop protection, greenhouse vegetable pest control, chemical weeding, livestock epidemic prevention etc..
- It is also suitable for hilly areas and other scattered plots.

# SAFETY

## For safe operation

Before using this product, please read this Operator's Manual thoroughly to ensure correct operation. The following are precautions that should be observed in order to use the product smoothly. Elsewhere in the Manual, the  warning mark is used to bring your attention to these precautions.



## Before using the product

- This product has been designed mainly for the purpose of spraying pest control chemicals and weedkillers. Please do not use it for any other purpose, as this may cause unforeseen accidents.
- Since this product uses agricultural chemicals that require careful operation, misuse can be dangerous. Do not use this product when tired or otherwise in poor physical condition, or when you may be unable to judge correctly or operate accurately, such as after taking cold relief medicines or drinking alcohol. Also, children or persons who are unable to understand the contents of this Manual should under no circumstances be permitted to use the product.



- The engine exhaust gas contains toxic carbon monoxide. Please do not use the product indoors, in vinyl houses or tunnels, or in other poorly ventilated places.



- Do not use this product in the following cases.

1. When the product could fall over or in other situations when it is difficult to hold or operate.
2. After sunset or at other times when eyesight is poor and the safety of the spraying area is difficult to ascertain.
3. In worsening weather (rain, fog, strong wind, lightning, etc.)



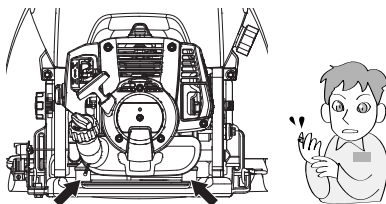
- When using for the first time, before commencing actual spraying please receive guidance in operating the product from a person with adequate experience.
- Fatigue reduces powers of concentration and increases the risk of accidents. When planning work, please allow ample time, setting a limit of 30-40 minutes for single spraying sessions and breaks of 10-20 minutes in between. Also, do not spray for more than 2 hours in any one day.



- Please take good care of this Operator's Manual and refer to it for additional information from time to time.
- When selling or lending this product, it should be accompanied by this Operator's Manual.

## WARNING

- Check to see if the shock-absorbing rubber mount has become cracked or otherwise damaged. Note that failing to replace this rubber mount when it has become cracked or damaged may cause the engine to come loose from its frame during use, thus resulting in possible serious bodily injury.
- If cracked, be sure to replace without delay.



### ▲ WARNING

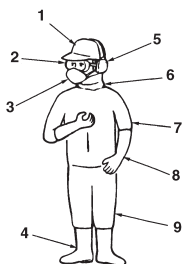
1. If you don't observe the working time, or working manner, Repetitive Stress Injury (RSI) could occur. If you feel discomfort, redness and swelling of your fingers or any other part of your body, see a doctor before getting worse.
2. To avoid noise complaints, in general, operate product between 8 a.m. and 5 p.m. on weekdays and 9 a.m. to 5 p.m. on weekends.

### ▲ NOTE

**Check and follow the local regulations as to sound level and hours of operations for the product.**

#### Precautions before spraying

- Make sure you have the correct protective clothing, headgear, rubber gloves and boots, a protective mask, goggles, a towel, protective cream, etc., to prevent chemicals from coming into contact with your skin or entering your lungs. When spraying, please wear this protective gear to prevent any risk of injury.



1. Protective headgear
2. Protective goggles
3. Protective mask
4. Rubber boots
5. Ear muffs
6. Neck covering
7. Protective clothing
8. Rubber gloves
9. Protective clothing

- Please store chemicals in a locked storage box, locker, or other safe place out of the reach of children.
- Carefully read the instructions for using the chemicals, and familiarize yourself with the level of toxicity, method of use, etc.
- Please pay all due consideration to the area in which you will be spraying, to ensure that you do not pollute the water supply, rivers, lakes, ponds, etc., or cause any damage to residents, passers-by, livestock, etc.
- Prepare yourself physically on the day before spraying, by for example cutting down on alcoholic beverages or late-night work.

Do not allow children, animals, etc., to enter the chemical spraying area.

- Before spraying, please prepare fully by inspecting sprayer nozzles and checking for abnormalities such as loose screws or spray hose connections, fuel leaks, defective or broken fluid gaskets, or damage to the carrying band.

#### Precautions when transporting chemicals

- When transporting chemicals, please handle with care to ensure that there is no spillage of chemicals from torn bags, broken bottles, or loose stoppers.
- Do not carry chemicals in the same container as food.

#### Precautions when transporting the sprayer

- Do not transport the sprayer while it has chemicals or fuel in the tank, as these could leak out as a result of impact during transportation.
- When transporting in a vehicle, please use a rope or similar to fix the sprayer firmly to the cargo trailer in an upright position. Please do not transport by bicycle or motorbike, as this is dangerous.

### ▲ WARNING

- If you must move the sprayer in a short distance by your hands, please use the handles on both sides of the tank to move it.

#### Precautions concerning fuel

### ▲ WARNING

**Taking the following precautions, will lessen the risk of fire:**

- Mix and pour fuel outdoors, where there are no sparks or flames.
- Do not smoke or place hot objects near fuel.
- Always shut off the engine before refuelling.
- Always stop the engine and let it cool for a few minutes before refuelling.
- When refuelling, open the fuel cap slowly so that any excess pressure is released gently.
- Tighten the fuel cap carefully after refuelling.
- Always move the machine away from the refuelling area and source before starting.
- Always use a fuel container with an anti-spill valve.
- If you have spilled fuel on it. Wipe off the spillage and allow remaining fuel to evaporate.
- Clean the area around the fuel cap. Contamination in the tank can cause operating problems.
- Ensure that the fuel is well mixed by shaking the container before filling the tank.

#### Precautions when refilling chemicals

- Before filling the tank with chemicals, please make sure that the cock valve is completely at rest.
- After chemical refilling, firmly tighten the tank cap. If not fully tightened the cap may become loose during

spraying, with the risk of physical exposure to the chemicals.

#### Precaution when starting the engine

- Please keep children, animals, etc. well away when starting the engine and spraying.

#### Precautions when spraying

- Since protective clothing generally offers poor ventilation and thus places stress on the body, there is a risk of contracting heatstroke or other illness when operating for long periods under high temperatures. Please avoid spraying on hot days, aiming instead for early morning and late afternoon times when temperatures are relatively cool and winds are low.
- When starting work, please pay all due consideration to the spraying time, wind direction, etc., to ensure that no noise disturbance or chemical hazard is caused to nearby residents, passers-by, farm crops, and so on.
- While spraying please hold the grip firmly at all times and be careful not to point the nozzle in the direction of people or animals.
- While spraying please be careful of the wind direction and always stand on the upwind side, to avoid spraying yourself with chemicals.
- Should you begin to feel even slightly unwell while spraying, consult a doctor immediately. When doing so, inform the doctor of the name of the chemical you were using, the conditions of use, etc.
- If the sprayer is tilted the chemical may leak out through the air holes in the cap. When spraying always make sure you have a firm footing and maintain your balance.
- Do not touch the spark plug or plug cords while the engine is running, as you may get an electric shock.
- Do not touch the muffler, spark plug, or other metal parts with your bare hands while the engine is running or immediately after stopping the engine, as there is the risk of burns due to high temperatures.



#### Precautions after spraying

- Please seal unused chemicals and store them out of the reach of children.
- Do not simply discard empty chemical containers, but dispose of them safely by incinerating, burying, or another similar method. In addition, please take every care that the water used to clean spraying tools does not create any hazard.
- Fully inspect and maintain protective clothing, masks, gloves, and other protective gear in preparation for the next session.
- After completing the work and tidying away chemicals and spraying tools, you should immediately take a bath or wash your hands, feet, face, etc. thoroughly with soap, as well as washing your mouth out.
- You should change all clothes worn, including underwear, and wash them thoroughly. Clothes worn during

spraying should not be worn again the following day.

- After spraying, please limit your alcohol intake and rest thoroughly by going to bed early. If you feel even slightly unwell, please see a doctor as soon as possible.

#### Other precautions

- When engaged in spraying work over a protracted period of time, please have your health checked regularly.
- Please carry out spraying in a planned fashion, keeping a daily record of the date and time of spraying, the chemicals used, the target pest, contents of the work, duration of the work, and other details.
- Please keep the following points in mind when selecting or using protective gear.
  - A. Protective clothing. Choose clothing that is cool to wear and offers good ventilation and waterproofing. In addition, wear items that enable you to carry out spraying work in total comfort and safety.
  - B. Spraying hood. Use a hood with a brim that is waterproof and covers your neck and shoulders.
  - C. Gloves. Use gloves that are difficult for chemicals to penetrate and do not slip even if you perspire while doing the work.
  - D. Rubber apron. When mixing chemicals, wear a long, thick, and wide apron that cannot be penetrated by chemical splashes.
  - E. Protective goggles, mask, etc. Select suitable protective goggles, mask, rubber boots, eye washer, and protective cream, etc., paying attention to standards and the recommendations of farm work safety promotion organizations.

#### Maintenance precautions

- In order to maintain the functions of the product, regularly carry out the maintenance inspections listed in this Manual. When maintenance or parts replacement not indicated in this Manual are required, please consult your product supplier or nearest Husqvarna product dealer.
- Never keep the engine running while carrying out inspections or maintenance.
- Do not modify the sprayer or dismantle the engine. This could lead to breakdown and serious accidents during operation.
- Do not touch the muffler or spark plug with your bare hands immediately after stopping the engine. There is the risk of burns due to high temperature.
- For replacement parts, please use original Husqvarna parts or brands designated by Husqvarna.



#### Maintenance of labels

1. Please keep warning labels clean and unmarked.
2. If warning labels become soiled or peel off, please order from your supplier and replace with new ones.
3. When affixing new labels please wipe off all dirt and moisture.

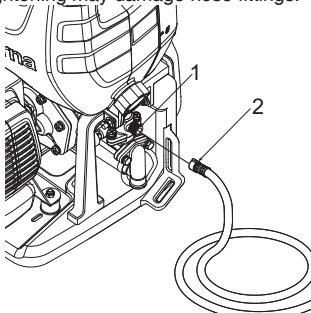
# ASSEMBLY

## To assemble the sprayer

1. Connect the spray hose assembly and the pump outlet.
2. Connect the spray hose assembly and spray rods.
3. Install and adjust the straps assembly with the unit.

## To connect the spray hose assembly and the pump outlet

1. Attach the spray hose to the pump outlet (1) by tightening the wing nut (2). Tighten by hand only as overtightening may damage hose fittings.



## To connect the spray hose assembly and spray rods

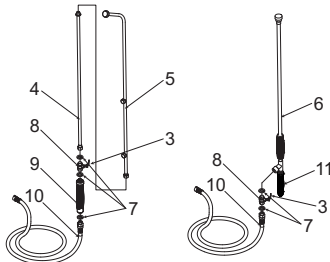
1. For 3-nozzle spray rod: Screw the extension rod (4) onto the cock valve (3). Screw the 3-nozzle spray rod (5) onto the extension rod (4). Ensure all connections are secured. Tighten by hand only.
2. For single nozzle wand: Screw the single nozzle wand (6) onto the cock valve (3). Ensure the connection is secured. The single wand is equipped with the flow adjustment. Tighten by hand only.

### ▲ NOTE

- If there is a leakage from the single nozzle wand (6) fittings, retighten the fittings with a spanner or multigrip.
- 3. After the spray hose assembly is connected with the spray rod, inspect and ensure all connections in the spray hose assembly such as the seals (7), cock valve (8), handle (9), spray hose (10) and rear handle (11) are tightly secured (hand tighten only).

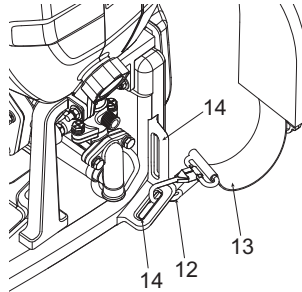
### ▲ NOTE

- Use rear handle (11) to adjust spray volume and spray distance.



## To install and adjust the straps assembly with the unit

1. Hook the harness clip (12) into the fastening eyelet (14).
2. Slip the hardness strap (13) over your shoulder.
3. Adjust the length of the strap for comfortable and balanced position.



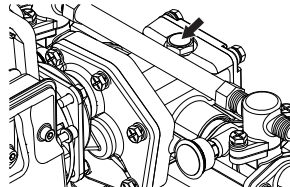
### ▲ NOTE

- Choose a different fastening eyelet (14), according to your height. Adjust to the most comfortable position.

## Checklist before starting the sprayer

### ▲ NOTE

- Before starting the engine, remove the decal on the pump gearbox. The hole below the decal is an air pressure balance hole. If you do not remove the decal, it can cause abnormal pressure and gear oil leakages.



Review the unit's assembly to ensure you have performed all of the following:

1. Be sure to read Operator Safety and Operation before using the sprayer.
2. Check for properly tightened hose connections and other connections including the spray hose assembly.
3. Check to make sure there are no kinks, cuts, or damage to hoses.

### ▲ WARNING

- Spray hose assembly and fittings are important for safety of the appliance. Use only hoses and fittings recommended by the manufacturer.



# FUEL

## ⚠ DANGER

- Gasoline is very flammable. Avoid smoking or bringing any flame or sparks near fuel. Make sure to stop the engine and allow it cool before refueling the unit. Select outdoor bare ground for fueling and move at least 3 m (10 ft) away from the fueling point before starting the engine.



- Never use two-stroke oil intended for water-cooled engines, sometimes referred to as outboard oil (rated TCW).
- Never use oil intended for four-stroke engines.



## RECOMMENDED MIXING RATIO:

- For best results and performance use HUSQVARNA two-stroke engine oil, which is specially formulated for our air-cooled two-stroke engines. Mixture 1:40 (2,5%).
- These engines are certified to operate on unleaded gasoline.
- If HUSQVARNA two-stroke oil is not available, you may use another two-stroke oil of good quality that is intended for air cooled engines. Contact your dealer when selecting an oil. If using another two-stroke oil, mixture 1:25.
- If you use a gasoline of a lower octane value than prescribed, there is a danger that the engine temperature may rise and an engine problem such as piston seizing may consequently occur.
- Clean, fresh and unleaded gasoline is recommended to reduce the contamination of the air for the sake of your health and the environment.
- Poor quality gasolines or oils may damage sealing rings, fuel lines or fuel tank of the engine.

## To mix the fuel

### ⚠ WARNING

- Pay attention to agitation.
- 1. Measure out the quantities of gasoline and oil to be mixed.
- 2. Put some of the gasoline into a clean, approved fuel container.
- 3. Pour in all of the oil and agitate well.
- 4. Pour in the rest of gasoline and agitate again for at least one minute. As some oils may be difficult to agi-

tate depending on oil ingredients, sufficient agitation is necessary for the engine to last long. Be careful that, if the agitation is insufficient, there is an increased danger of early piston seizing due to abnormally lean mixture.

5. Put a clear indication on the outside of the container to avoid mixing up with gasoline or other containers.
6. Indicate the contents on outside of container for easy identification.

## To fuel the unit

1. Untwist and remove the fuel cap. Rest the cap on a dustless place.
2. Put fuel into the fuel tank to 80% of the full capacity.
3. Fasten the fuel cap securely and wipe up any fuel spillage around the unit.

## ⚠ WARNING

1. Select bare ground for fueling.
2. Move at least 3 meters (10 feet) away from the fueling point before starting the engine.
3. Stop the engine before refueling the unit. At that time, be sure to sufficiently agitate the mixed gasoline in the container.

## FOR YOUR ENGINE LIFE, AVOID:

1. FUEL WITH NO OIL (RAW GASOLINE) It will cause severe damage to the internal engine parts very quickly.
2. GASOHOL - It can cause deterioration of rubber and/or plastic parts and disruption of engine lubrication.
3. OIL FOR 4-CYCLE ENGINE USE It can cause spark plug fouling, exhaust port blocking, or piston ring sticking.
4. Mixed fuels which have been left unused for a period of one month or more may clog the carburetor and result in the engine failing to operate properly.
5. In the case of storing the product for a long period of time, clean the fuel tank after rendering it empty. Next, activate the engine and empty the carburetor of the composite fuel.
6. In the case of scrapping the used mixed oil container, scrap it only at an authorized repository site.

## ⚠ NOTE

- As for details of quality assurance, read the description in the section Limited Warranty carefully. Moreover, normal wear and change in product with no functional influence are not covered by the warranty. Also, be careful that, if the usage in the instruction manual is not observed as to the mixed gasoline, etc. described therein, it may not be covered by the warranty.

# CHEMICAL FILLING

## ⚠ WARNING

- Chemical substances should be handled correctly, observing the safety instructions and precautions marked on the container. Some chemicals are extremely hazardous to humans and animals, and handling errors can cause serious poisoning or even fatal accidents.
- When not in use, chemical substance containers should be stored separately from other containers out of the reach of children.

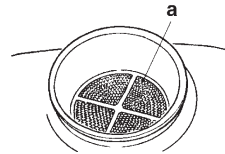
## ▲ NOTE

- Do not fill the sprayer tank with undiluted fluid. This could cause the gasket and valves to lose their durability.

- Do not fill the sprayer tank with coarse particle fluid like bordeaux mixture or lime sulphur. This will shorten the service life of the machine.

## Procedure for filling

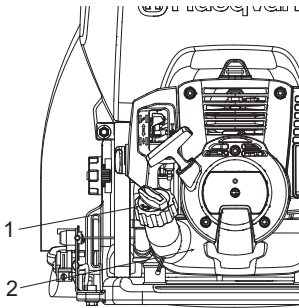
1. Use a bucket or other suitable container and dilute the chemical to the requisite strength.
2. Place the sprayer on an even and stable surface and remove the sprayer tank cap.
3. Fill the tank by passing chemical through the strainer (a).
4. When filling is complete, firmly tighten the cap.



# OPERATION

## ⚠ WARNING

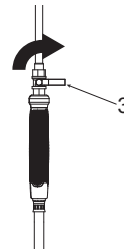
- **Highly combustible.** When refueling, switch the engine off and keep well away from naked flames.
- After filling the tank (2) with fuel, firmly tighten the cap (1).



## To start the engine

## 📖 NOTE

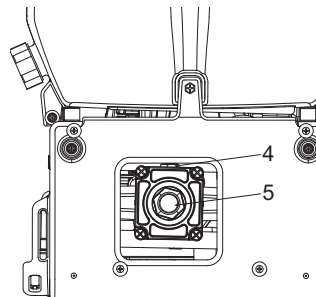
- Before starting the engine, make sure that the cock valve (3) is completely returned. Starting with the cock valve still pulled out is dangerous, as chemical fluid may spray out of the nozzle as soon as the engine is started.



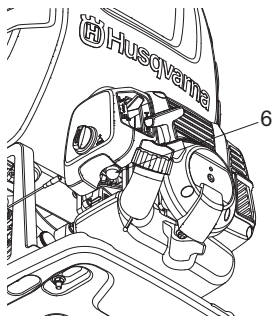
- To start the engine, place the sprayer on an even and stable surface or platform. If the sprayer is unstable, the reaction on starting etc. may cause it to fall.

## ▲ IMPORTANT

- Do not allow the chemical fluid or water in the tank to run out while the engine is running. If the engine runs empty it may cause breakage of the spray pump.
- Make sure that the gear oil is filled until the middle of the check-window (5). If it is not enough, loose the upper bolt (4) and fill the gear oil.

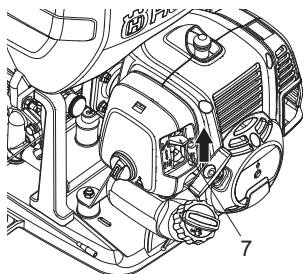


1. Press the primer (6) at the bottom of the carburetor a few times with your finger until the fuel starts to flow through the transparent pipe.



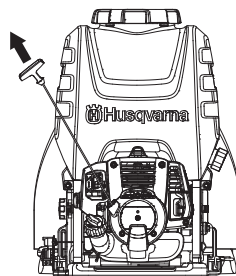
#### ▲ NOTE

- There is no need to operate the primer when restarting immediately after stopping the engine, provided there is fuel left in the fuel tank.
2. Lift the choke lever (7) on the right of the air cleaner until it is in the "closed" position.



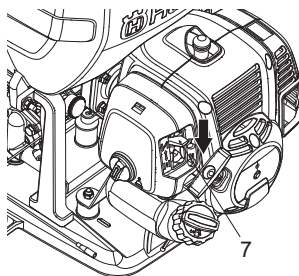
#### ▲ NOTE

- When restarting immediately after stopping the engine, set the choke lever to "open".
  - DO NOT close the choke when starting a warm engine. A warm (hot) engine can be:
    - an engine that has just stopped running.
    - an engine in hot ambient temperatures.
3. Move the throttle lever to 1/2 from the "idle" position. DO NOT increase throttle lever until the unit is on the operators back and the unit is ready for spraying.
  4. Place the sprayer in a stable location, and pull the starter knob with the right hand while holding the sprayer tank down with the left hand. The starter knob should first be pulled out lightly, then, when resistance is felt, pulled more swiftly and vigorously.



#### ▲ NOTE

- Do not pull the rope out completely or release the starter knob so that the rope returns, as this can cause starter malfunction.
5. After the explosion is heard, place the damper bar to "half open" position.
  6. Once the engine has started, fully open the choke lever (7), warm up at idling for 2-3 minutes.



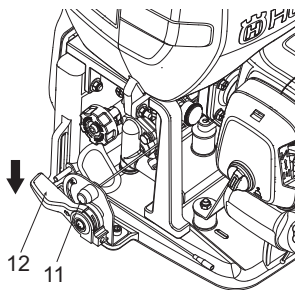
#### ▲ NOTE

- If the rope is pulled continuously with the choke closed, the spark plug may become flooded and the engine may fail to start. If so, you should first remove the spark plug and dry the electrodes, then repeat the starting procedure.

#### To stop the engine

#### ▲ WARNING

- Stop the engine immediately in the event of an emergency.
1. Lower the throttle lever (12) fully and cool the engine down for 1-2 minutes at low speed.
  2. Hold down stop switch (11) on the left side of the sprayer frame until the engine has come to a complete stop.



#### ▲ NOTE

- Except for an emergency, avoid stopping the engine while pulling the throttle trigger.

#### To spray

#### ▲ WARNING

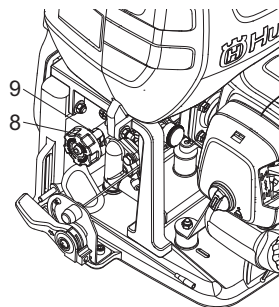
- Please use correctly, observing the precautions in this manual.
- Before lifting the sprayer onto your back, check that the sprayer tank cap and fuel tank cap are tightly closed.
- When spraying, do not point the nozzle at your face, or at other people, animals, etc.
- If the sprayer is tilted too much, chemical fluid or fuel may leak out through the air holes in the cap. When using, always try to maintain an upright posture.

#### ▲ NOTE

- If the sprayer tank becomes empty while spraying, reduce the engine to low speed immediately. Empty running of the engine may cause the spray pump to break.
- Please avoid using multiple nozzles, jet nozzles, or other nozzles that give a large spray volume, as spraying efficiency is sometimes impaired owing to insufficient pressure.

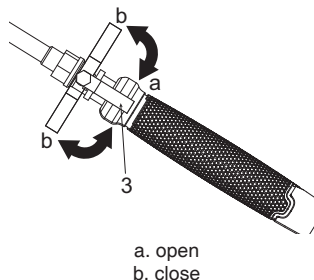
#### Spraying procedure

1. Start the engine,
2. Set the pressure regulating dial (8) to appropriate spray conditions. The pressure regulating dial is used to control the amount of pressure the pump will produce. When set, excess pressure is vented back into the tank supply to ensure a maximum output pressure at the wand. To set the pressure, follows these steps:
  - Turn in clockwise direction to increase the pressure, or; Turn in anticlockwise direction to decrease the pressure.
  - To lock the pressure regulating dial, tighten the pressure locking plate (9) in clockwise direction.



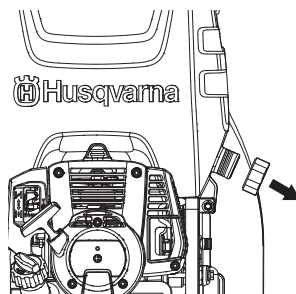
#### ▲ NOTE

- Pressure has been set properly before delivery, do not change the pressure unless it is required.
3. Lift the sprayer onto your back.
  4. Adjust the brace to a suitable length.
  5. Open the cock valve (3).
  6. Increase the engine speed, chemical fluid starts to spray out from the nozzle in the form of mist.
  7. When stopping work, close the cock valve (3) fully and reduce the engine speed.



#### Cleaning after completion of spraying

1. Loosen the fluid drain cap, transfer the chemical fluid left inside the tank into a suitable container, and process appropriately with all due consideration to safety.



2. Pour about 5 litres of clean water into the sprayer tank, spray through the nozzle for 2-3 minutes, and drain the water left inside the tank.

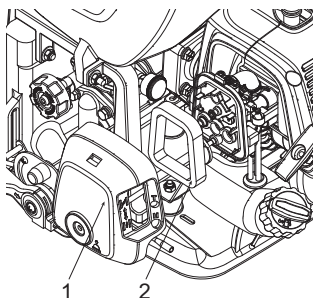
# MAINTENANCE

## ▲ WARNING

- Make sure that the engine has stopped and is cool before performing any service to the machine. Contact with hot muffler may result in a personal injury.
- Do not modify the sprayer or dismantle the engine.
- When replacing parts please use Husqvarna original parts or designated parts.

### To check the air cleaner

- After every 25 hours of operation, please remove the air cleaner cover (1) and inspect the air cleaner (2). If it is too dirty, wash it carefully in warm water containing a neutral detergent, and return it to its original position after drying it thoroughly.
- If the air cleaner (2) is distorted or damaged, please replace it with a new one.

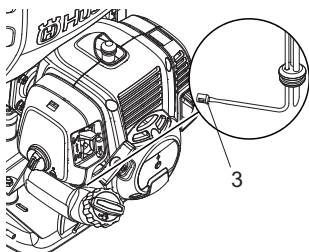


## ▲ NOTE

- If the air cleaner is blocked, the efficiency of the engine will be reduced. In addition, the engine interior will suffer abnormal wear if operated without the filter or if continually operated with a distorted or damaged filter fitted.

### To check the fuel filter

- After every 25 hours of operation, empty the fuel tank, detach the fuel filter (3) from the tank, and remove all dirt. If the filter is too clogged, please replace it with a new one.



## ▲ NOTE

- If the fuel filter is clogged, the engine speed may be limited or speed fluctuations may occur.
- If the engine is operated without a fuel filter, dirt will accumulate in the carburetor and cause it to malfunction.

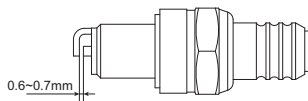
### To check the spark plug

## ▲ WARNING

- Do not touch the spark plug with your bare hands immediately after operation, as there is the risk of burns due to high temperature.



- After every 25 hours of operation, detach the spark plug and remove dirt from the electrodes with a wire brush or similar.
- The correct electrode gap is 0.6 to 0.7mm.
- When replacing plugs, please use designated items.



## ▲ NOTE

- If too much fuel is absorbed or poor quality oil is used, the spark plug electrodes become dirty, making the engine harder to start.
- Note that using any spark plug other than those designated may result in the engine failing to operate properly or in the engine becoming overheated and damaged.
- To install the spark plug, first turn the plug until it is finger tight, then tighten it a quarter turn more with a socket wrench.

TIGHTENING TORQUE: 14.7 to 21.6 N.m.  
(150 to 220 kgf-cm)

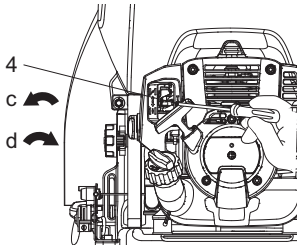
### To adjust the engine speed

- Although the engine is adjusted on leaving the factory, after repeated use it may sometimes require readjustment or maintenance. Please consult your original supplier regarding inspections and maintenance other than those shown below.

### To adjust idling speed

- If the engine stalls or the pump continues to move when in idling position with the throttle lever completely

lowered, readjust the engine speed using the idle speed adjuster (4) on the left of the carburetor.



- c. reduce speed
- d. increase speed

#### Turn the idling adjustment screw:

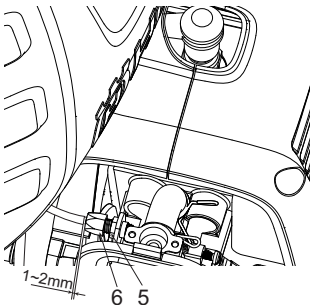
- Counter-clockwise to reduce engine speed
- Clockwise to increase engine speed

#### ▲ NOTE

- Warm up the engine before adjusting the idling speed.

#### To adjust the throttle wire play

- Throttle wire play should be 1 to 2 mm.
- Take the throttle wire at the carburetor end in your fingers and give a light tug, after completely returning the throttle lever,
- Readjust the position of the wire retaining nut (6), if the play is too great or too small.
- Loosen the lock nut (5) and turn the wire retaining nut (6) clockwise (screw in) to increase the play and counter-clockwise (unscrew) to reduce it.
- Fasten the wire retaining nut by tightening the lock nut , after adjusting.

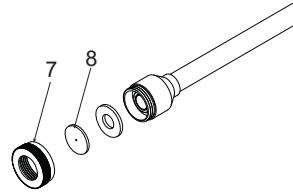


#### To check spray nozzle

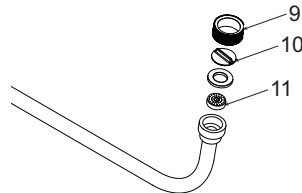
A clogged spray nozzle can cause the spray pressure and flowrate to drop. All excessive pressure will go back to the sprayer tank.

To correct the problem, immediately clean the spray tip by following these instructions:

1. Stop engine & remove the unit from the operators back.
2. Disconnect the spray rod from the spray hose assembly.
3. To remove the nozzle cap (7/9), turn in anticlockwise direction.
4. Inspect and clean the spray tip (8/10) and metal strainer (11) for 3-nozzle spray rod from any foreign material clogging or restricting the spray nozzle. Replace if damaged.
5. Reinstall the nozzle cap and the spray rod with the spray hose assembly tightly (hand tighten) .



Single nozzle spray rod



3-nozzle spray rod

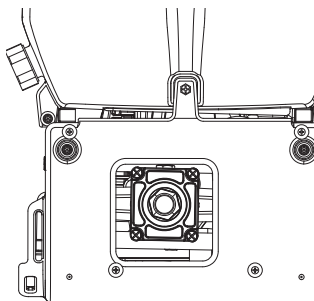
#### To check the pump oil level

Oil level should be checked prior to each use.

1. Make sure the sprayer is on a level surface.
2. To get access to the back of the pump, you need to unbutton the top backpad only.
3. Verify the oil is showing as 1/3-1/2's full (approx. 130 ml) in the oil glass window.
4. Replace and re-button the backpad into place before using.

#### ▲ NOTE

- DO NOT attempt any oil maintenance on this pump.
- The pump is pre-lubricated and sealed from the factory. If refilling is required, see an Authorized Dealer or Service Centre.



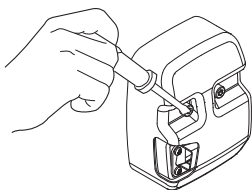
### To check the muffler

#### ▲ WARNING

- Inspect periodically, the muffler for loose fasteners, any damage or corrosion. If any sign of exhaust leakage is found, stop using the machine and have it repaired immediately.
- Note that failing to do so may result in the engine catching on fire.

### Perform the procedures after every 100 hours of operation

1. Remove the muffler, insert a screwdriver into the vent, and wipe away any carbon buildup. Wipe away any carbon buildup on the muffler exhaust vent and cylinder exhaust port at the same time.
2. Tighten all screws, bolts, and fittings.
3. Check to see if any oil or grease has worked its way in between the clutch lining and drum, and if it has, wipe it away using oil-free, lead-free gasoline.



### To check the air cooling fan

#### ▲ WARNING

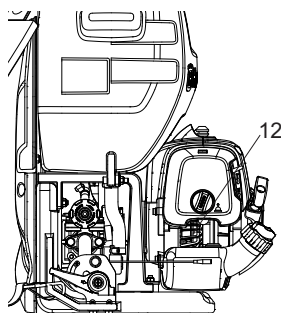
- Never touch the cylinder, muffler, or spark plug with your bare hands immediately after stopping the engine. The engine can become very hot when in operation, and doing so could result in severe burns.
- When checking the machine to make sure that it is okay before using it, check the area around the muffler and remove any wood chips or leaves

which have attached themselves to the brushcutter. Failing to do so could cause the muffler to become overheated and that in turn could cause the engine to catch on fire. Always make sure that the muffler is clean and free of wood chips, leaves, and other waste before use.

- Check the intake air cooling vent and the area around the cylinder cooling fins after every 25 hours of use for blockage. Note that it is necessary to remove the upper cover and the lower cover in order to be able to view the upper part of the cylinder.

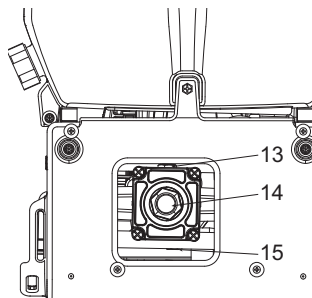
#### ▲ NOTE

- If waste gets stuck and causes blockage around the intake air cooling vent (12) or between the cylinder fins, it may cause the engine to overheat, and that in turn may cause mechanical failure on the part of the brushcutter.



### To replace the gear oil

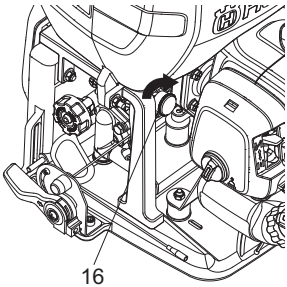
- After first 25 hours of use, replace the gear oil. After that, replace it after every 100 hours of use (SAE90, 130cc).



- (13) Upper bolt  
(14) Check-window  
(15) Drain bolt

To check the grease cups

- Open the upper cap (16) of the grease cup and check the grease amount. Fill it up if it is decreasing.



Maintenance procedure	Daily	Weekly	Monthly	Note
Overall				
Inspect the whole unit for damage, leak or spillage	√			
Inspect all accessible fasteners	√			Tighten or replace if necessary
Inspect all screws/nuts/bolts	√			Tighten or replace if necessary. Adjusting screws are not included.
Check the hoses and fittings	√			
Clean for any debris	√			
Engine				
Inspect and clean the fuel tank		√		
Inspect and clean the fuel filter		√		
Inspect and clean the air cleaner		√		
Check the operation of the throttle lever and stop switch.	√			
Empty the fuel tank	√			
Apply grease to the plunger	√			
Clean or re-adjust the spark plug gap		√		Make sure the gap is 0.6 to 0.7m (.025in). Replace if necessary
Inspect the muffler for damage.		√		Replace if necessary
Clean the muffler and the cylinder exhaust port			√	
Clean the cylinder fins and intake air cooling fan			√	



Maintenance procedure	Daily	Weekly	Monthly	Note
<b>Sprayer tank and spray nozzels</b>				
Check/clean the sprayer tank strainer	✓			Clean if clogged. Replace if damaged or torn.
Empty and clean the sprayer tank	✓			
Check the spray nozzles	✓			
<b>Pump</b>				
Check the level of the pump oil			✓	
Replace the gear oil			✓	
Check the grease cups		✓		Refill if necessary

## DISPOSAL AND STORAGE

### Disposal

When disposing your machine, fuel or oil for the machine, be sure to allow your local regulations.

### Storage

#### ⚠ WARNING

- When draining fuel, please be careful not to spill it. If fuel is spilt, wipe off thoroughly. In addition, please be sure to close the storage container cap tightly.

#### ⚠ NOTE

- If fuel is left in the engine for protracted periods, the inside of the carburetor may become clogged and cause engine malfunction (faulty starting and insufficient output).
- During storage, slightly loosen the cap of the chemical fluid tank. If screwed too tightly, the gasket may become distorted.

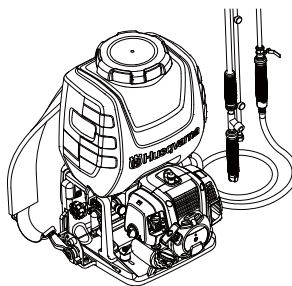
On completion of all work procedures, when not planning to use again for a protracted period please carry out the following pre-storage care, to prevent trouble caused by time-lapse changes.

- Clean the chemical fluid tank and nozzle (see page 13).
- Remove dirt from the sprayer, inspect it for any damage or looseness, and, if any abnormality is found, correct it thoroughly in preparation for the next time you use the unit.
- Drain the fuel tank.

- Start the engine, and leave it in idling condition until all the fuel inside the carburetor is spent and the engine comes to a natural stop.
- Remove the spark plug and put a few drops (1 to 2 cc) of 2-cycle oil inside the engine. After pulling the starter rope 2 or 3 times, return the spark plug to their original position and stop in compressed position.
- After oiling the throttle lever and other metal parts with anti-corrosive oil, cover the sprayer and store indoors in a low-humidity location.

#### ⚠ NOTE

- Keep the sprayer upright when you do not use it and store it. If the sprayer is not upright, gear oil leakages can occur from the pressure balance hole of pump gearbox.



# TROUBLESHOOTING

Problem	Possible causes	Remedy
Engine will not start	Electrode spark plug is wet or fouled	Clean or replace the spark plug
	Cracked spark plug insulator	Replace the spark plug
	Incorrect spark plug gap	Adjust gap 0.6 - 0.7mm
	Engine flooded	Crank engine with choke open and full throttle to clear excess fuel
	Incorrect or stale fuel	Drain and replace with correct fuel/oil mixture
	No fuel in tank	Refuel with correct fuel/oil mixture
Insufficient power	Clogged air cleaner	Clean and lubricate air cleaner
	Fuel line/passage clogged	Contact Service Centre or see Authorized Dealer
	Carbon build up in muffler	Contact Service Centre or see Authorized Dealer
	Use incorrect or stale fuel	Drain and replace with correct fuel/oil mixture
	Piston seizure	Contact Service Centre or see Authorized Dealer
	Machine is overworked	Operate properly - do not overload
Engine stops during operation	Switch is bumped	Restart the engine
	Shorting of spark plug	Clean spark plug or replace
	Piston scored	Contact Service Centre or see Authorized Dealer
	Fuel tank is empty	Refuel with correct fuel/oil mixture
	Carburettor or fuel tank clogged	Contact Service Centre or see Authorized Dealer
Engine is difficult to stop	Stop wire disconnected from the switch	Attach stop wire to switch
	Overheated engine	Contact service centre or see Authorized Dealer
Unit main body	Loose engine and/or pump mounts	Retighten engine and/or pump mount screws
	Tank leak	Contact service centre or see Authorized Dealer
	Leak at the tube connections	Retighten the hose clip or replace if damaged
Pump is no spraying	No chemical diluted liquid in the sprayer tank	Fill the sprayer tank
	Valves inside the pump clogged	Contact Service Centre or see Authorized Dealer
	Cock valve blocked	Clean the cock valve or replace
	Incorrect pressure setting-too low	Adjust the pressure regulating dial
	Pump is worn out or damaged	Contact Service Centre or see Authorized Dealer
	Spray rod nozzle clogged	Clean the nozzle

Problem	Possible causes	Remedy
Insufficient spray pressure	Pump speed or pressure setting too low	Adjust the pump speed and pressure regulating dial
	Spray rod nozzle clogged	Clean the nozzle
	Pump seals and/or vee-packing seals worn or damaged	Contact Service Centre or see Authorized Dealer
	One way valve(s) inside the pump clogged	Contact Service Centre or see Authorized Dealer
	Clutch slipping	Replace the clutch
	Lack of lubrication	Apply grease onto the plunger
	Burst spray hose	Contact Service Centre or see Authorized Dealer
	Spray rod nozzle worn or damaged	Contact Service Centre or see Authorized Dealer

If running difficulties continue, contact your closest Authorized Dealer or Service Centre.

# TECHNICAL DATA

Product model		323S15	323S25
Pump	Type	Plunger type	
	Working Pressure (MPa) *	1.5-3.0	
	Max. Pressure (MPa) *	3.5	
	Max. Working Flowrate (L/min) *	7	
	Rated Pressure (MPa)/ Rated Flowrate (L/min) *	2.5/4	
Engine	Type	Single-cylinder air-cooled 2-stroke gasoline engine	
	Engine Displacement (cc)	26.2	
	Max. Power/Speed (kW/r/min) *	0.75/7500	
	Engine Operating Speed (r/min) **	≥ 7000	
	Idling speed (r/min)	2700-3300	
	Fuel Type	Gasoline/Oil Mixture	
	Oil	2-stroke oil	
	Admixture ratio	25:1,40:1(Only Husqvarna genuine oil)	
	Starter system	Easy starter	
	Spark plug	CMR7H TORCH	
External dimensions of main unit (mm) L*W*H:		395*386*556	400*386*632
Capacity of sprayer tank (L)		15	25
Gross Mass: Empty (kg)		10.2	10.6
Capacity of fuel tank (L)		0.6	0.6

▲ NOTE

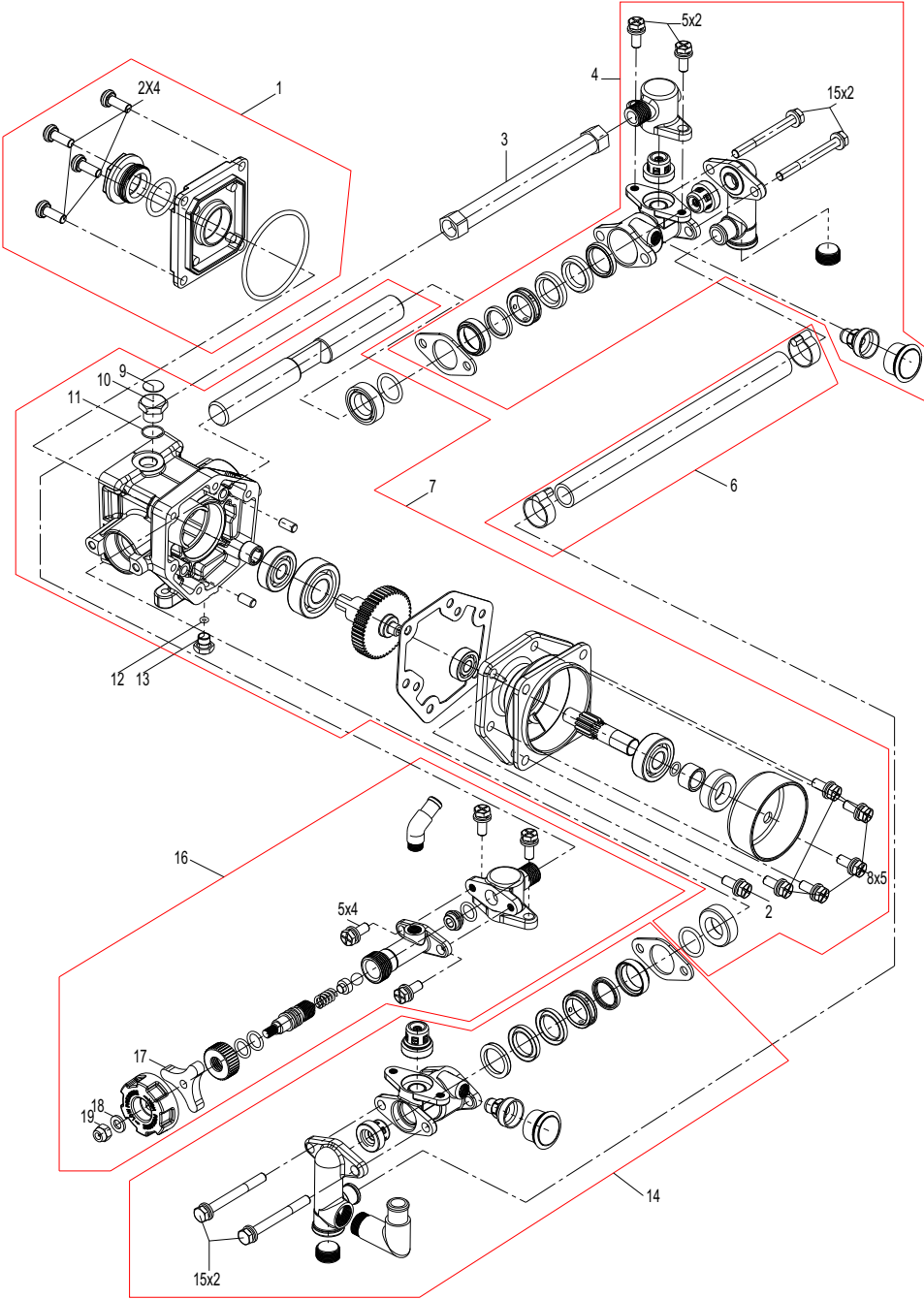
\* Rated in accordance with manufacturers test standard  
\*\* The engine operating speed is deliberately set to 7000-8000 rpm by the manufacturer to optimise the engine and pump performance and life  
Due to product improvements, these specifications are subject to change without notice.

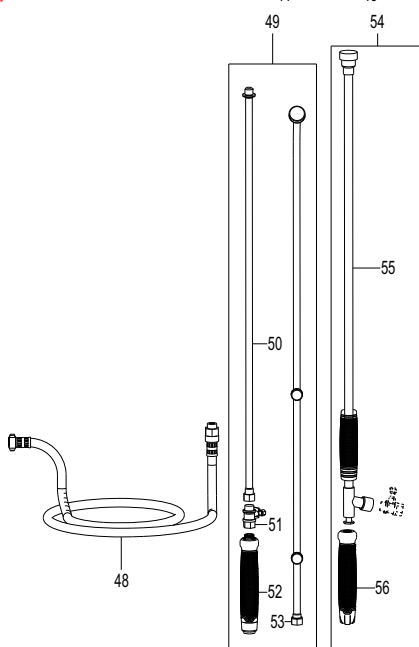
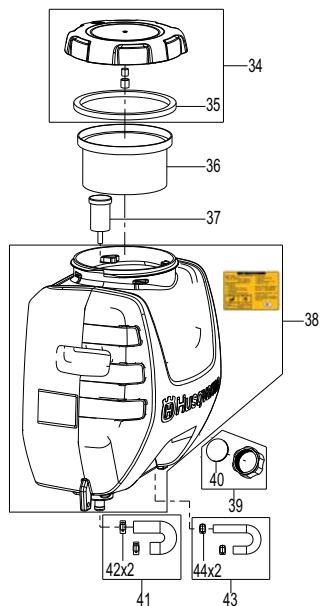
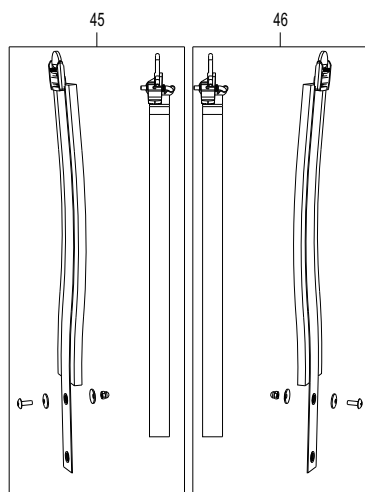
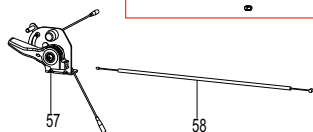
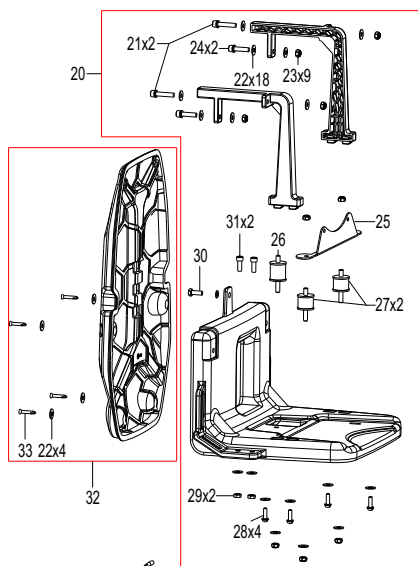
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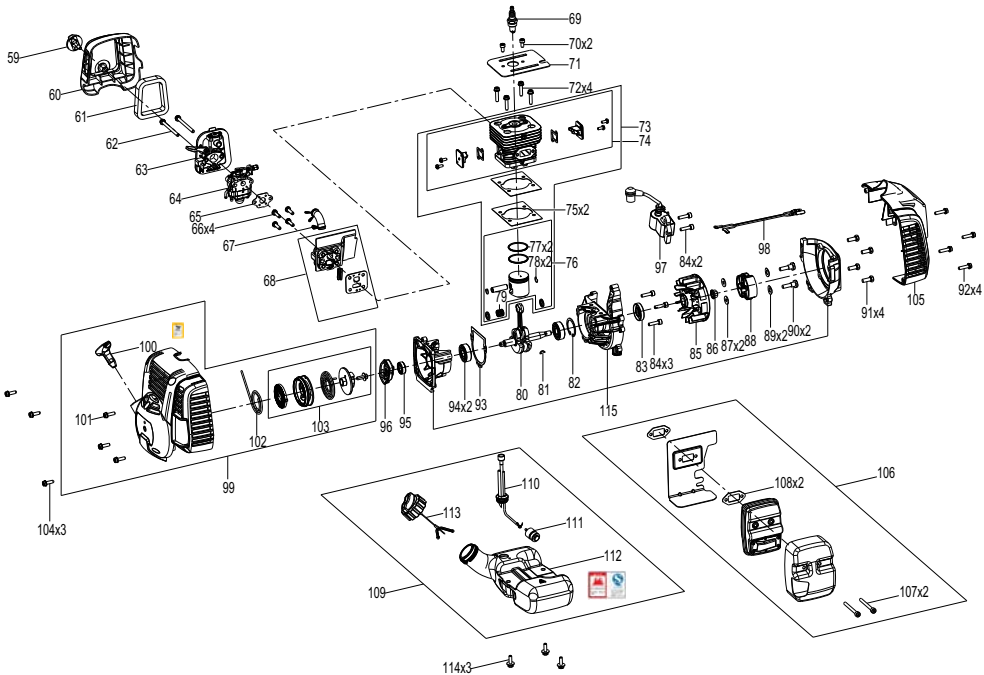
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Product name	Quantity
Knapsack Power Sprayer	1
High Pressure Hose	1
Extension Rod	1
3-nozzle Spray Rod	1
Random Toolkit	1
Instruction	1
Fuel Oil Mixing Tank	1
Goggles	1
Mask	1

# SPARE PART







Reference number	Part name	Procutt code	Specifications	Quantity
1	Cover Assy	590211702		1
2	Bolt	589942301	M6x16	4
3	Pressure Hose	589833901		1
4	Pump Assy Right	590211802		1
5	Bolt	589941901	M6x14	2
15	Bolt	589942101	M6x70	2
6	Pipe Assy	593014101		1
7	Gearbox Assy	589831302		1
2	Bolt	589942301	M6x16	1
8	Bolt	589942501	M6x18	5
9	Decal	589832601		1
10	Plug	592992901		1
11	O-Ring	589832502		1
12	O-Ring	589832302		1



Reference number	Part name	Procutt code	Specifications	Quantity
13	Plug	592992801		1
14	Pump Assy Left	590212002		1
15	Bolt	589942101	M6x70	4
16	Valve Assy	589828602		1
5	Bolt	589941901	M6x14	4
17	Knob	592992701		1
18	Washer	589831101		1
19	Lock Nut	503222007		1
20	Base Assy	590212402		1
21	Screw	589952401	M6x30	2
22	Plane Washer	589953001	16x6x1.3	18
23	Nut	574594401		9
24	Screw	589952402	M6x25	2
25	Bracket	592886301		1
26	Absorber	589546001		1
27	Absorber	589545901		2
28	Screw	589971601	CRPANT ST4.8x16	4
29	Hexagon Nut	589971701		2
30	Bolt	589971501	M6x16	1
31	Screw	504456701	IHSCM M6x16	1
32	PAD Assy 321S Sprayer	590212501		1
22	Plane Washer 16x6x1.3	589953001	16x6x1.3	4
33	Screw	590161901	CRPANT ST4.2X25	4
34	Tank Cap Assy	589325101		1
35	Gasket	589834501		1
36	Filter	589542201		1
37	Filter Plug	589545601		1
38	Tank	582498801	15L	1
	Tank Assy	593019201	25L	1
39	Cap Assy	589545501		1
40	Gasket	589834701		1
41	Pipe Assy Input	593014301		1

Reference number	Part name	Product code	Specifications	Quantity
42	Pipe Clamp	592993001		2
43	Pipe Assy Return	593014401		1
44	Clamp	592993201		2
45	Harness Assy Left Shoulder	590212601		1
46	Harness Assy Right Shoulder	590212701		1
47	Handle Of Harness Assy	590019601		1
48	Pipe	589547201		1
49	Spray Lance Assy	589547601		1
50	Rod Assy	589547401		1
51	Valve Assy	589547301		1
52	Single Handle Assy	582620601		1
53	Rod Assy	589547501		1
54	Spray Lance Assy	589547701		1
55	Spray Lance	589789801		1
56	Handle Assy	582620701		1
57	Throttle system	589545701		1
58	Throttle cable	589834802		1
59	Knob	537213208		1
60	Air Filter Cover	582624801		1
61	Air Filter	575309501		1
62	Screw	578303901		2
63	Filter Holder Assy	582668301		1
64	Carburetor	584274102		1
65	Gasket	575310901		1
66	Screw	584956201		4
67	Inlet Pipe Assy	593019001		1

Reference number	Part name	Procut code	Specifications	Quantity
68	Insulator And Gasket Assy	593019101		1
69	Spark Plug	578410201		1
70	Screw	575308901		2
71	Plate	575306701		1
72	Screw	584956001		
73	Cylinder Kit	593014801		
74	Cylinder Assy	593589001		
75	Gasket	575307802		2
76	Piston Assy	593014601		1
77	Piston Ring	575307901		2
78	Circlip	575308101		2
79	Needle Bearing	575308401		1
80	Crankshaft Assy	575308601		1
81	key	574727901		1
82	Circlip	735313110		1
83	Sealing	575312101		1
84	Screw	584955901		5
85	Flywheel	591046601		1
86	Nut	574223401		1
87	Washer	575313501		2
88	Clutch Assy	575313601		1
89	Spring Washer	575313701		2
90	Screw	513189601		2
91	Bolt	589971501	M6x16	4
92	Screw	525755102	ITXSCFM	4
93	Gasket	575311902		1
94	Bearing	574726601		2
95	Seal	574222101		1
96	Bridge	585296501		1
97	Ignition Module	585565501		1
98	Short Circuit Cable	582625701		1
99	Starter Assy	593015601		1
100	Starter Handle	575489501		1
101	Screw	525755101	ITXSCFT	3

Reference number	Part name	Procuct code	Specifications	Quantity
102	Starter Rope	578091102		1
103	Driver Assy	593176401		1
104	Screw	573925801	ITXSCFT	3
105	Engine Cover	582625201		1
106	Muffler System	592732001		1
107	Screw	584956301		2
108	Gasket	585613001		2
109	Fuel Tank Kit	593015401		1
110	Hose Kit	593015501		1
111	Fuel Filter	574227001		1
112	Fuel Tank	585094601		1
113	Tank Cap Assy	580926802		1
114	Screw	575313301		3
115	Crankcase Kit	593014901		1

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英文原稿，中文翻译版 (Original/Translation instructions)

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