



Your first tree climbing kit

All-in-one bag • MRS • SRS • Spike-assisted removal

Tree Pro Hub | Miguel Morales

Choose a compatible climbing system before choosing individual products. This guide describes the purpose, selection criteria and limitations of the equipment a first-time arborist climber will encounter.

TRAINING FIRST

This is not an instruction sequence or permission to climb. A qualified arborist instructor must assess the tree, anchor, climber, task and full equipment combination. Start with supervised low-height practice, trained ground support and a rescue plan, away from electrical hazards and cutting tools.

WHAT IS INSIDE

Setup-specific bag lists; rope and harness types; lanyards and connectors; PPE and throwline; MRS and SRS control systems; ascent aids; removal-only spikes; buying, storage and inspection considerations.

IMPORTANT

There is no universal safe shopping list, rope length or connector count. Actual model instructions, manufacturer-approved combinations and applicable workplace requirements control. Removal needs additional training and task-specific equipment beyond this climbing guide.

Equipment by climbing setup

Moving rope system • also called DdRT

The climbing rope travels over a suitable anchor or friction saver and returns to the climber. A compatible hitch-and-pulley system or approved mechanical device controls movement. Often taught in introductory arborist courses; it still requires supervised training.

Core bag + MRS-compatible climbing rope, friction saver, and matched hitch cord/pulley or MRS device.

Bag list: Gear bag & separate rope bag; Arborist saddle / tree climbing harness; Life-support climbing rope; Adjustable work-positioning lanyard; Life-support carabiners & connectors; Helmet, eye protection & footwear; Throwline, throw weights & storage cube; Friction saver / cambium saver; MRS hitch cord + pulley, or MRS device; Communication, first aid & rescue provision

A device approved only for moving-rope use must not be used on a stationary rope unless the manufacturer explicitly permits the complete configuration.

Equipment by climbing setup

Stationary rope system • also called SRT

The climbing line stays fixed at an assessed canopy or basal anchor. A system specifically approved for stationary-rope ascent, work positioning, and descent manages the climber. The anchor and rescue arrangements change with the configuration.

Core bag + SRS-compatible rope and device, approved anchor equipment, and optional foot/knee ascenders for efficient ascent.

Bag list: Gear bag & separate rope bag; Arborist saddle / tree climbing harness; Life-support climbing rope; Adjustable work-positioning lanyard; Life-support carabiners & connectors; Helmet, eye protection & footwear; Throwline, throw weights & storage cube; SRS work-positioning / descent system; SRS anchor & retrieval equipment; Foot / knee ascenders & tending accessories; Communication, first aid & rescue provision

A hitch alone is not a complete SRS descent system. Use a manufacturer-approved SRS device or a specified hitch/rope/rope-wrench combination. A basal anchor must be protected from cutting and interference.

Equipment by climbing setup

Spike-assisted positioning · trained removal work only

Climbing spurs support positioning on a tree being removed. They are an addition to an appropriate climbing and work-positioning system, not a substitute for one. A trainer must choose the system for the tree and task.

Core bag + a trainer-selected MRS or SRS system, climbing spurs with suitable gaffs/pads/straps, and a task-appropriate positioning lanyard. Separate rigging and saw equipment may also be needed.

Bag list: Gear bag & separate rope bag; Arborist saddle / tree climbing harness; Life-support climbing rope; Adjustable work-positioning lanyard; Life-support carabiners & connectors; Helmet, eye protection & footwear; Throwline, throw weights & storage cube; Climbing spikes / spurs, pads & straps; Communication, first aid & rescue provision

Do not use spikes for routine pruning or recreational climbing on retained trees: gaffs puncture live tissue. Spikes alone are not fall protection. This list is not a complete removal or chainsaw kit.

Equipment in detail

Gear bag & separate rope bag

1 gear bag + 1 rope bag | MRS, SRS, Removal

Keep personal climbing equipment together, with separate compartments or pouches for hardware, rope and PPE.

SELECTION & COMPATIBILITY

Choose a durable bag that fits the actual rope length and harness without crushing them. A rope bucket or flaking bag keeps the climbing line clean; ventilated storage helps after gear is dried according to its manual.

LIMITATIONS & INSPECTION

A bag is not a rated anchor. Keep fuel, oils, batteries and sharp tools away from life-support equipment. Bagging gear is not a substitute for inspection.

Arborist saddle / tree climbing harness

1 fitted harness | MRS, SRS, Removal

A work-positioning and suspension harness supports the climber during movement and canopy work.

SELECTION & COMPATIBILITY

Compare padded sit-harness designs, leg loops versus seat-style support, adjustable fit, and manufacturer-approved rope bridges. Bridge attachment points commonly serve the climbing system; side D-rings are commonly for the positioning lanyard. Confirm each attachment's permitted use in the manual.

LIMITATIONS & INSPECTION

A recreational climbing harness or tool belt is not interchangeable with an arborist work-positioning harness. A sit harness is not automatically suitable for fall arrest. Do a supervised low-level fit test; never alter the bridge or substitute unapproved parts.

Equipment in detail

Life-support climbing rope

1 line sized for the site | MRS, SRS, Removal

The main life-support line, selected for the complete climbing system rather than color or price.

SELECTION & COMPATIBILITY

Arborist lines include 16-strand, 24-strand double-braid and low-stretch kernmantle constructions. Many MRS lines are around 11.5–13 mm; many SRS devices accept lines in the roughly 11–13 mm range, but these are examples, not approval ranges. Choose the exact rope model, diameter, construction and termination listed by the device manufacturer. Length must allow the planned route and return to the ground; MRS generally uses two legs of rope.

LIMITATIONS & INSPECTION

Do not use hardware-store rope, rigging rope or an arbitrary rock-climbing rope. Diameter alone does not establish compatibility. Never use a climbing line to lower branches, and check the manufacturer's requirements for knots, splices and end stops.

Adjustable work-positioning lanyard

1 complete matched system | MRS, SRS, Removal

Provides positioning and an additional attachment during appropriate transitions and work. It does not replace the main climbing system.

SELECTION & COMPATIBILITY

Options include rope lanyards with compatible hitch cord or mechanical adjusters; two-ended systems support some positioning techniques. Steel-core lanyards are used in some removal settings only when appropriate to the task and electrical conditions. Match adjuster, line and connectors as a complete approved system.

LIMITATIONS & INSPECTION

No lanyard is chainsaw-proof or electrically insulating. A work-positioning lanyard is not an energy-absorbing fall-arrest lanyard. A trainer must teach attachment choices and continuous protection during transitions.

Equipment in detail

Life-support carabiners & connectors

Quantity set by the approved system | MRS, SRS, Removal

Join the harness, climbing device, lanyard and compatible accessories at their designated attachment points.

SELECTION & COMPATIBILITY

Use rated connectors approved for arborist life support; triple-action, self-closing, auto-locking gates are common. D shapes favor specified directional connections; oval shapes often suit compatible pulleys/devices; captive-eye connectors can help maintain orientation. Shape and quantity depend on the system, not a universal starter-bag number.

LIMITATIONS & INSPECTION

Accessory clips and tool carabiners are not life support. Check locking action, loading orientation and clearance; avoid cross-loading, gate loading and incompatible crowded connections. Never assume every auto-locking connector fits every device.

Helmet, eye protection & footwear

1 fitted PPE set | MRS, SRS, Removal

Protects against relevant head, eye and foot hazards. Gloves, hearing protection and other PPE depend on the job.

SELECTION & COMPATIBILITY

Choose a work helmet with suitable retention and the protection required by the task and employer, compatible eye protection, and supportive boots with grip. For spur work, boot construction must be compatible with the spur manufacturer. Add hearing protection and saw-protective clothing only as required for the work and training.

LIMITATIONS & INSPECTION

Ventilated climbing helmets are not automatically electrically rated. No helmet, rope or other bag item makes work near energized lines safe; beginners must stay out of electrical exposure and follow applicable exclusion distances.

Equipment in detail

Throwline, throw weights & storage cube

1 throwline kit | MRS, SRS, Removal

Installs the climbing line from the ground after a competent person assesses the tree and anchor.

SELECTION & COMPATIBILITY

Use a purpose-made lightweight throwline, compatible throw weights and a storage cube/bag to reduce tangles. Weight choice depends on throw technique, canopy and line; a spare can help with retrieval, but is not a reason to take unsafe shots.

LIMITATIONS & INSPECTION

Throwline is not life-support rope. Keep people clear of thrown weights and never throw near power lines. A successful throw does not prove an anchor is sound.

Friction saver / cambium saver

1 if required by the MRS plan | MRS

Reduces rope friction and bark abrasion at a compatible MRS anchor.

SELECTION & COMPATIBILITY

Ring-and-ring, pulley and adjustable designs have different installation, retrieval, load and rope requirements. Select a rated unit with a length and hardware suitable for the assessed anchor and intended system.

LIMITATIONS & INSPECTION

Not every MRS friction saver is an SRS anchor. Follow the exact installation and retrieval instructions; keep people clear during retrieval and prevent hardware striking the ground.

Equipment in detail

MRS hitch cord + pulley, or MRS device

1 complete control system | MRS

Controls movement and descent on a moving rope system.

SELECTION & COMPATIBILITY

A hitch-based setup uses a specific friction-hitch cord, approved terminations, a suitable tending pulley and connectors. Heat-resistant eye-to-eye cords are common. Cord diameter, length, hitch and wraps must suit the exact climbing line. Alternatively, select a mechanical device expressly approved for MRS with that rope.

LIMITATIONS & INSPECTION

Do not mix random hitch cord, knots and rope based on appearance. Have the trainer check grip, release and connector alignment at low height with appropriate protection before climbing.

SRS work-positioning / descent system

1 complete SRS-approved system | SRS

Supports movement and controlled descent on a stationary climbing line.

SELECTION & COMPATIBILITY

Choose a purpose-designed SRS device, or a manufacturer-specified rope-wrench system including compatible hitch, rope, pulley and tether. Some devices support both MRS and SRS only in specified configurations. Follow the complete published compatibility list.

LIMITATIONS & INSPECTION

A hand, chest or foot ascender alone is not a work-positioning/descent system. Do not improvise SRS with an MRS-only device or an unsupported friction hitch.

Equipment in detail

SRS anchor & retrieval equipment

As specified in the anchor plan | SRS

Secures a stationary line to an assessed canopy or basal anchor and supports the planned retrieval/rescue method.

SELECTION & COMPATIBILITY

Canopy and basal anchors use different rated slings, connectors and configurations. Select the exact equipment with your instructor. A basal anchor can impose greater force on the upper redirect than climber weight alone, depending on rope angles and friction.

LIMITATIONS & INSPECTION

Never treat an unassessed branch, arbitrary strap or rigging sling as a proven climbing anchor. Protect basal anchors from vehicles, tools and interference; rescue capability depends on the full configuration.

Foot / knee ascenders & tending accessories

Optional SRS ascent aids | SRS

Make stationary-rope ascent more efficient while the approved life-support system remains engaged.

SELECTION & COMPATIBILITY

Foot ascenders, knee-ascender assemblies, foot loops and chest tending systems have distinct roles. Match rope diameter, orientation and any tether to the manufacturer's instructions. Chest tending straps are not automatically rated harness attachments.

LIMITATIONS & INSPECTION

Foot and knee ascenders are ascent aids, not independent life support. A toothed cam can damage rope if shock-loaded. Descent and changeovers need instruction; do not disconnect the life-support system to rely on these aids.

Equipment in detail

Climbing spikes / spurs, pads & straps

1 matched pair · removal only | Removal

Gaffs penetrate wood to assist positioning during suitable removal work.

SELECTION & COMPATIBILITY

Compare steel and aluminum shanks, adjustable height, pad styles and replaceable straps. Tree gaffs and pole gaffs differ; select the manufacturer-approved gaff for the bark and task, with boots that support the assembly. Fit and inspect both spurs with an instructor.

LIMITATIONS & INSPECTION

Keep out of a pruning or recreational kit for retained trees. Use only with trained climbing/work-positioning protection; inspect gaffs, fasteners, pads and straps and protect points during transport. Do not sharpen or modify outside the manual.

Communication, first aid & rescue provision

Crew/site provision; not just a bag item | MRS, SRS, Removal

A climber needs a planned response to injury or inability to descend, with capable assistance on the ground.

SELECTION & COMPATIBILITY

Arrange trained ground support, a task-specific rescue plan and suitable rescue equipment, communication method, first-aid kit, site location and emergency access before climbing. Personal whistle/phone/radio options must work with the crew's plan.

LIMITATIONS & INSPECTION

Buying a complete bag does not establish rescue readiness. Do not begin unsupervised climbing; practice with qualified instruction at low height, away from power lines, and without cutting tools.

Buying and maintaining the complete bag

BEFORE BUYING

Verify the exact harness size, rope model and length, control system, lanyard, connectors and anchor equipment. A bundle marked “complete” may omit PPE, throwline or rescue provision. Obtain instructor approval for the combination before purchase.

TRACEABILITY

Buy from reputable suppliers; retain the current manuals and equipment markings. Avoid life-support equipment with unknown history. Keep inspection records and follow model-specific service-life and retirement instructions.

PACKING & STORAGE

Keep personal climbing ropes separate from rigging lines. Protect sharp spurs with gaff guards and keep them away from rope and harness fabric. Clean and dry as directed; protect equipment from fuel, solvents, chemicals, heat and damaging sunlight.

PRE-CLIMB CHECK

Inspect rope, harness, terminations, connectors, lanyard and devices. Stop if you find damage, missing markings, malfunctioning locks or uncertain compatibility. Quarantine suspect equipment and have it assessed; do not repair life-support parts ad hoc.

TRAINING & RESCUE

A complete bag is not a rescue plan. Confirm qualified assistance, suitable rescue equipment, communication, first aid and emergency access before each climb. Work near energized conductors requires specialized qualification and applicable electrical rules.

Manufacturer and official references

Petzl ZIGZAG — MRS/SRS configurations and rope compatibility

<https://www.petzl.com/US/en/Professional/Descenders/ZIGZAG>

Petzl SEQUOIA — tree-care harness attachments

<https://www.petzl.com/US/EN/Professional/Harnesses/SEQUOIA>

OSHA Tree Care Work — PPE, equipment and training

<https://www.osha.gov/sites/default/files/publications/OSHA3752.pdf>

OSHA 1910.269 — applicable line-clearance requirements

<https://www.osha.gov/laws-regs/regulations/standardnumber/1910/1910.269>