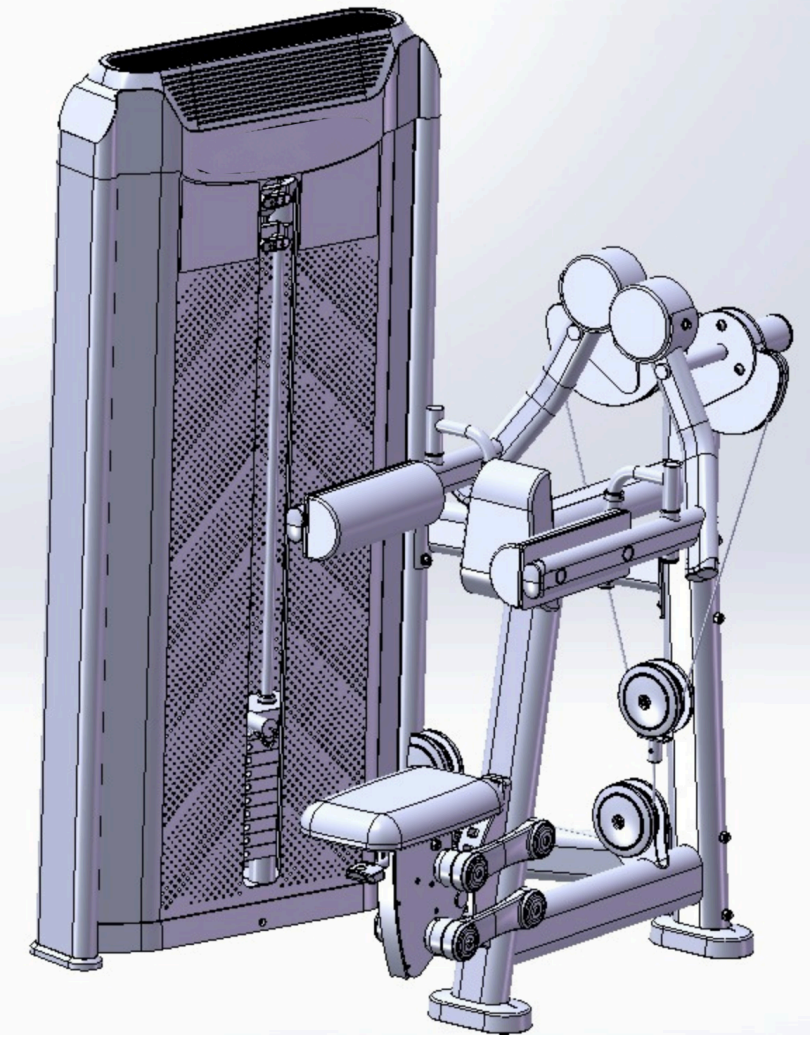
BUILT STRENGTH

FRACTAL SERIES

Lateral Raise

Assembly & Owner Guide



BUILT TO PERFORM.

Read before assembly. Keep this guide for future reference.

01 / PREPARE

Before you begin

Set up your space

Assemble indoors on a level, stable surface with clear access around the equipment. Protect the floor and allow enough room to lay out the frame and hardware.

Check every part

Unpack and compare the components with the illustrated lists. Keep hardware grouped by stage. Reference numbers identify parts in the drawings; they may restart at each stage. Quantities are for the corresponding source list and should not be added across stages.

Prepare tools and help

Have metric hex keys and suitable metric wrenches or sockets ready for the listed fasteners. Use sufficient help to support heavy frames and moving assemblies. Keep hands clear of pinch points and never work beneath an unsupported load.

Follow the assembly drawings

Work through the stages in order. Match each numbered callout with its parts list. Confirm orientation before fitting fasteners. A part described as an assembly is supplied as a component; the wording does not instruct you to weld it.

Check connections before use

Use the specified hardware at each joint. Confirm that fasteners are secure and moving parts operate freely. If a part, dimension or connection is unclear, stop and contact Build A Gym before continuing.

ASSEMBLY SUPPORT

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02 / SAFETY

Use and care safely

- Use the equipment indoors in a dry, supervised area. Keep the surrounding floor level and unobstructed.
- Children under 12 must not use this equipment. Provide appropriate supervision and assistance for other users who need it.
- Before each use, inspect moving components, fasteners, pins and attachments. Have loose or damaged parts corrected before use.
- Wear suitable exercise clothing and athletic shoes. Warm up before exercise and use slow, controlled movements.
- Increase resistance gradually. Stop exercising if you feel pain, discomfort or anything unusual, and consult a doctor.
- Consult your doctor before starting an exercise program.
- Keep hands, clothing and other objects clear of moving parts. Make sure adjustment pins and any safety stops are fully engaged.
- Clearly mark the equipment “Out of Use” during servicing or repair. Keep this guide available for future reference.

Your assembly sequence

Stage 1 → Stage 2 → Stage 3 → Stage 4 → Stage 5 → Stage 6 → Final inspection

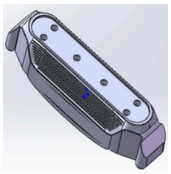
Use the PDF bookmarks to jump directly to a stage.

STAGE 1 / PARTS

Identify your components

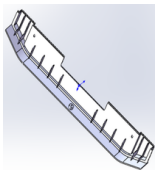
Match each reference and quantity to the drawing for this stage.

REF 1 **QTY 1**



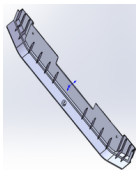
Large roof panel

REF 2 **QTY 1**



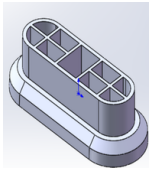
Front baseplate

REF 3 **QTY 1**



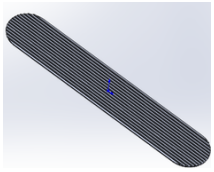
Rear base

REF 4 **QTY 2**



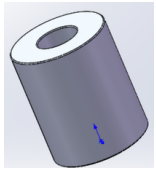
Base

REF 5 **QTY 1**



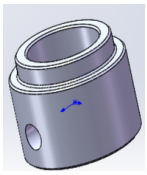
Top cover

REF 6 **QTY 2**



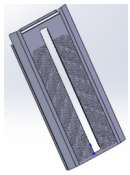
Weight counterbalance pad

REF 7 **QTY 2**



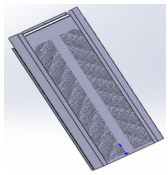
Guide rod fixing sleeve

REF 8 **QTY 1**



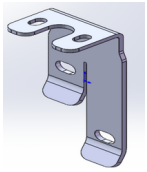
Front guard plate

REF 9 **QTY 1**



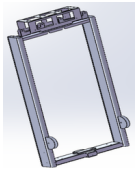
Rear guard plate

REF 10 **QTY 1**



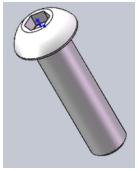
Counterweight bracket on small door

REF 11 **QTY 1**



Small frame assembly

REF 12 **QTY 2**



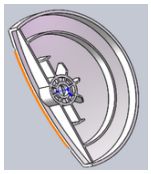
Hex socket cap screw

STAGE 1 / PARTS

Identify your components

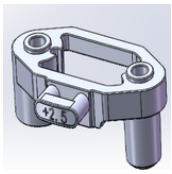
Match each reference and quantity to the drawing for this stage.

REF 13 **QTY 4**



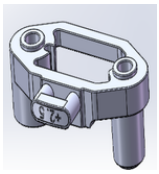
136 semi-circular pulley housing

REF 14 **QTY 1**



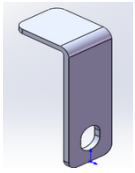
2.5 kilograms of auxiliary counterweight

REF 15 **QTY 1**



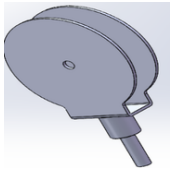
2.5 kilograms of auxiliary counterweight

REF 16 **QTY 4**



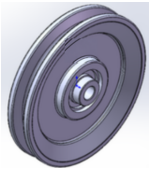
Anti-slip guard plate for skipping rope

REF 17 **QTY 1**



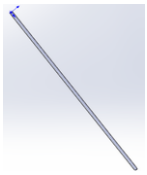
Pulley components

REF 18 **QTY 7**



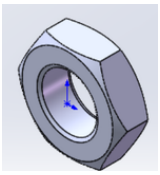
Pulley

REF 19 **QTY 2**



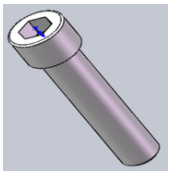
Weight-bearing guide rod

REF 20 **QTY 1**



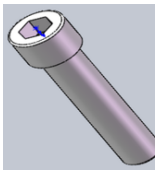
Hexagonal thin nut

REF 21 **QTY 8**



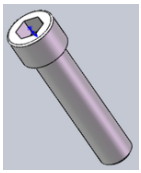
Hexagonal round head screw

REF 22 **QTY 1**



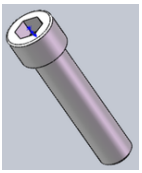
Hexagonal round head screw

REF 23 **QTY 4**



Hexagonal round head screw

REF 24 **QTY 2**



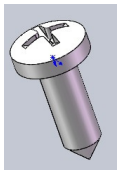
Hexagonal round head screw

STAGE 1 / PARTS

Identify your components

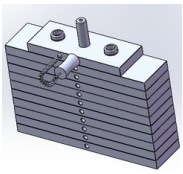
Match each reference and quantity to the drawing for this stage.

REF 25	QTY 12



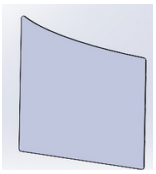
Cross-slot pan-head self-tapping screws

REF 26	QTY 1



80 kg weight stack

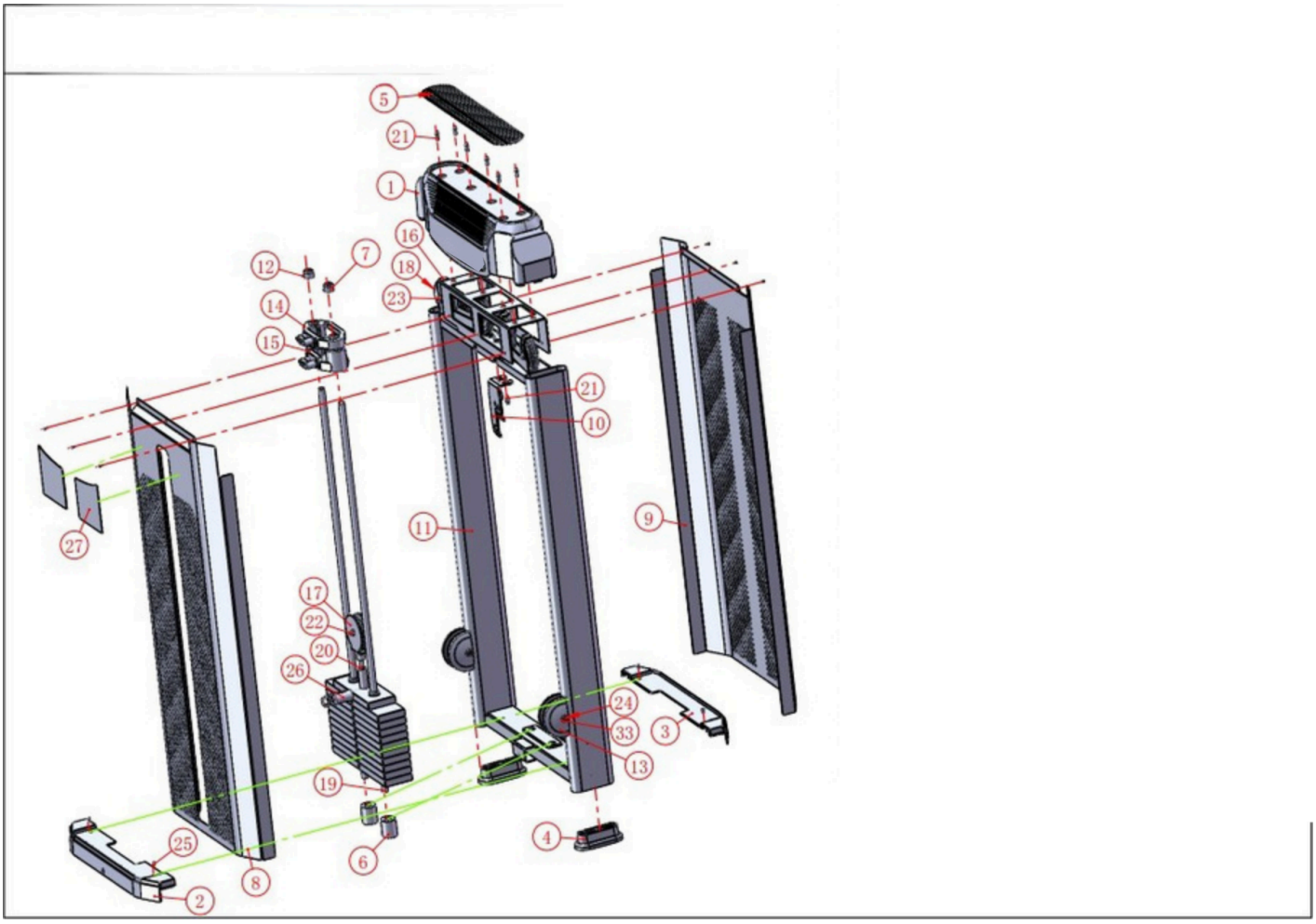
REF 27	QTY 2



Decal

STAGE 1 / DRAWING 1 OF 1

Assembly stage 1



Match the numbered callouts to the Stage 1 parts list. Position the components as shown and use the listed hardware at each connection.

Stage 1: Assemble the Weight Tower

Use Stage 1 references. Keep the tower supported and the stack resting fully down while fitting its guides and pulleys.

1. Confirm the tower hardware
Use Stage 1 references. Screws 12 and 21–25 lack dimensions, and drawing callout 33 is missing from the list. Identify each supplied fastener and obtain its size and connection specification before fastening the tower components. Support tower frame 11 upright on a level floor.

2. Fit buffers, stack and guide rods
Keep stack 26 supported at its base. Fit buffers 6 and guide rods 19 in the illustrated relationship. Preserve plate order and selector access. The source shows the 80 kg stack as an assembly; obtain the plate-loading and lower guide-retention details if it arrives dismantled.

3. Fit upper guide components
Fit auxiliary weights 15 and 14 above the stack in the depicted order. Fit guide sleeves 7 and screws 12. Confirm the rods remain parallel and retained at both ends before loading the stack.

4. Install pulleys and covers
Fit pulleys 18, anti-jump guards 16 and housings 13 at their depicted positions. Fit pulley component 17 with screw 22 and thin nut 20 at the stack connection as shown, using the confirmed termination specification. Fit bracket 10, upper panel 1 and top cover 5 with the confirmed screws.

5. Fit the base pieces
Fit base pieces 2 and 3 and feet 4 as shown. Keep front guard 8 and rear guard 9 accessible until routing inspection. Confirm all tower and stack retainers; do not tension an uncertain cable attachment.

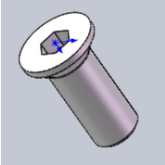
Check before continuing
Tower, guides, stack and pulley mounts are secure.

STAGE 2 / PARTS

Identify your components

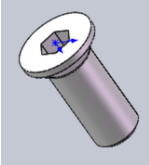
Match each reference and quantity to the drawing for this stage.

REF 1 **QTY 1**



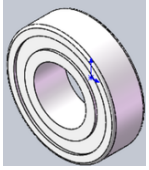
Countersunk socket screw M8 × 20

REF 2 **QTY 1**



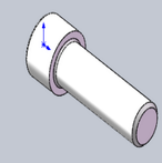
Countersunk socket screw M8 × 35

REF 3 **QTY 2**



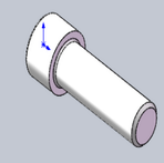
Deep groove ball bearing

REF 4 **QTY 2**



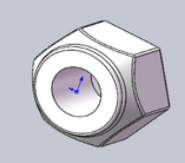
Socket-head screw M8 × 30

REF 5 **QTY 2**



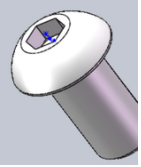
Socket-head screw M10 × 35

REF 6 **QTY 3**



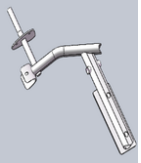
Locknut M10

REF 7 **QTY 3**



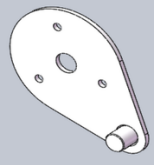
Socket-head screw M10 × 50

REF 8 **QTY 1**



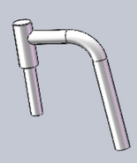
Right boom assembly

REF 9 **QTY 1**



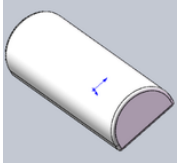
Limit left boom

REF 10 **QTY 1**



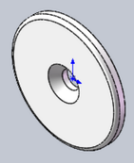
Handles assembly

REF 11 **QTY 1**



Shoulder pad

REF 12 **QTY 1**



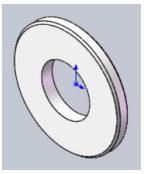
Aluminum end cover

STAGE 2 / PARTS

Identify your components

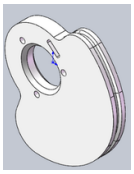
Match each reference and quantity to the drawing for this stage.

REF 1 **QTY 1**



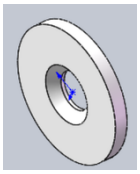
Spacer sleeve

REF 2 **QTY 1**



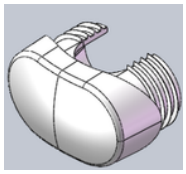
Wire reel

REF 3 **QTY 1**



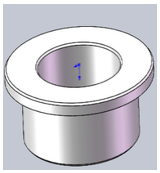
End cover

REF 4 **QTY 2**



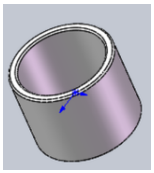
40 × 70 end cover (curved end)

REF 5 **QTY 2**



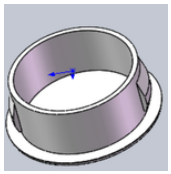
Sintered sleeve

REF 6 **QTY 1**



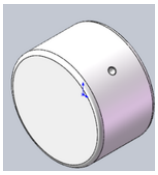
Buffer sleeve

REF 7 **QTY 1**



25 round hole plug

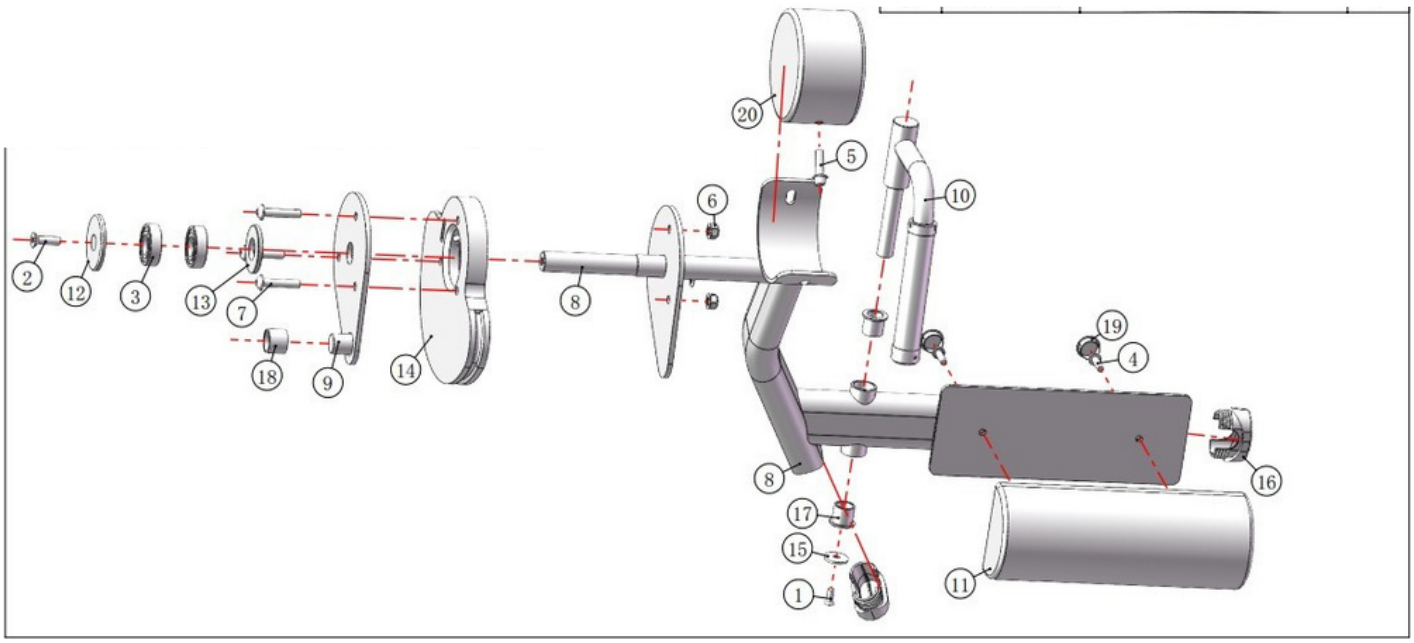
REF 8 **QTY 1**



Circular counterweight

STAGE 2 / DRAWING 1 OF 1

Assembly stage 2



Match the numbered callouts to the Stage 2 parts list. Position the components as shown and use the listed hardware at each connection.

Stage 2: Assemble the Lifting Arms

Do not apply cable tension while a cam, counterweight or bearing retainer is unconfirmed.

6. Identify the arm components
Use the Stage 2 drawing references. Its callouts 13–20 correspond, in order, to the second parts page: spacer sleeve, wire reel, end cover, curved caps, bushings, buffer sleeve, round plug and circular counterweight. That page incorrectly restarts its references at 1. Confirm this correspondence with the supplied parts before assembly.

7. Fit bearings and cable cam
Support arm 8. Fit bearings 3, spacer 13 and the cable cam (wire reel) 14 with limit plate 9 in the illustrated order. Fit M10 × 50 screws 7 and nuts 6 at the shown joints, and cap 12 with M8 × 35 countersunk screw 2 at the pivot end. Confirm bearing retention and cam orientation before mounting the arm.

8. Fit the handle and arm pad
Fit bushings 17 and handle 10 into arm 8 as shown. Fit end cover 15 with M8 × 20 countersunk screw 1 and fit buffer 18 at the limit plate. Attach shoulder pad 11 with M8 × 30 screws 4. Fit plugs 19 and curved caps 16 after checking the fasteners.

9. Secure the counterweight and opposite arm
Attach circular counterweight 20 with M10 × 35 screws 5 at the illustrated mount. The drawing details one arm; confirm the opposite arm is correctly assembled and mirrored with its own bearings, cam, pad, handle and retainers. Keep both arms supported until mounted.

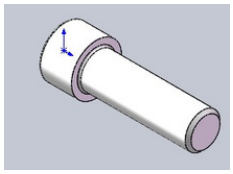
Check before continuing
Both arm assemblies and their counterweights are complete and supported.

STAGE 3 / PARTS

Identify your components

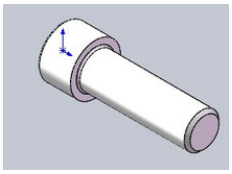
Match each reference and quantity to the drawing for this stage.

REF 1 **QTY 8**



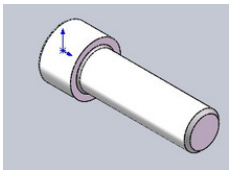
Socket-head screw M8 × 30

REF 2 **QTY 1**



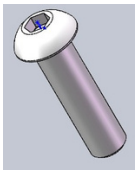
Socket-head screw M10 × 20

REF 3 **QTY 6**



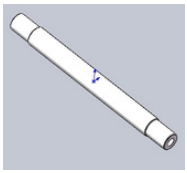
Socket-head screw M10 × 35

REF 4 **QTY 4**



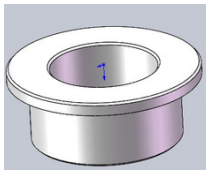
Socket-head screw M8 × 25

REF 5 **QTY 2**



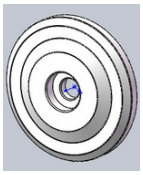
Long rotating shaft

REF 6 **QTY 4**



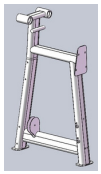
Sintered sleeve

REF 7 **QTY 4**



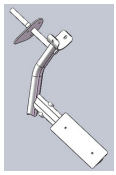
Aluminum cap

REF 8 **QTY 1**



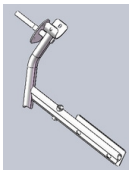
Main frame assembly

REF 9 **QTY 11**



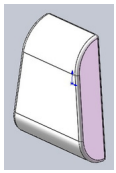
Right boom assembly

REF 10 **QTY 1**



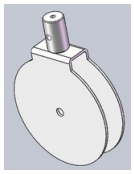
Left boom assembly

REF 11 **QTY 10**



Cushion

REF 12 **QTY 1**



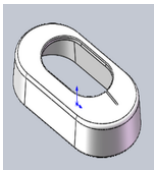
Pulley box assembly

STAGE 3 / PARTS

Identify your components

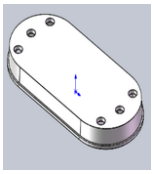
Match each reference and quantity to the drawing for this stage.

REF 13	QTY 2



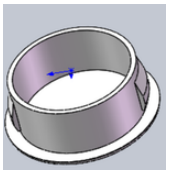
Anchor bolts

REF 14	QTY 2



Plastic parts for foundation

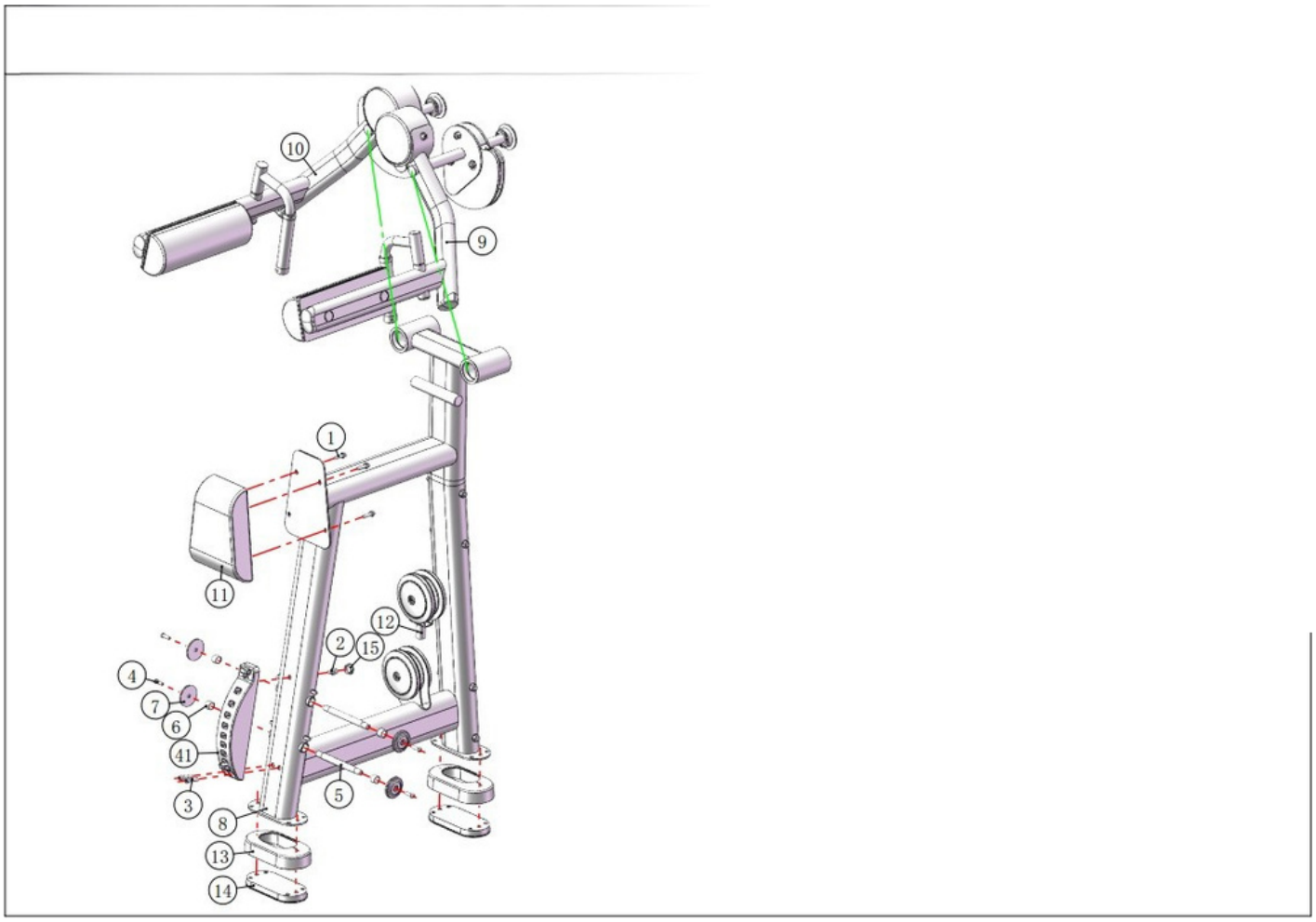
REF 15	QTY 5



25 round hole plug

STAGE 3 / DRAWING 1 OF 1

Assembly stage 3



Match the numbered callouts to the Stage 3 parts list. Position the components as shown and use the listed hardware at each connection.

Stage 3: Prepare the Exercise Frame

Use Stage 3 references. Resolve the omitted adjustment rack and incorrect quantities before continuing.

10. Position the frame and mount the arms
Stand main frame 8 on a protected level surface with support. Install right arm 9 and left arm 10 at the upper pivots with their confirmed Stage 2 bearing and retention components. The source lists quantities of 11 for the right arm and 10 for cushion 11; confirm the actual kit quantities against the drawing.

11. Install the frame cushion and pulley box
Fit cushion 11 with M8 × 30 screws 1 at the depicted mounting points. Fit pulley box 12 with M10 × 20 screw 2 as shown. Confirm its mating hardware, retention and orientation before cable routing.

12. Prepare the seat linkage mounts
Fit long shafts 5 and bushings 6 in their depicted positions. Fit aluminum caps 7 with M8 × 25 screws 4. Attach the curved adjustment rack with M10 × 35 screws 3; the drawing calls this rack 41 but the list omits it, so confirm the supplied component and all its fixings.

13. Complete the feet and frame checks
Fit foot components 13 and 14 and plugs 15 after checking the concealed joints. The list calls item 13 anchor bolts although the drawing shows a foot component; confirm the actual floor-fixing requirements separately. Verify both upper pivots, counterweights, pad mounts and seat-shaft retainers.

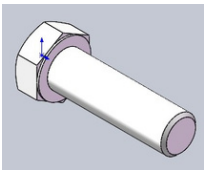
Check before continuing
The frame stands evenly and all arm pivots and seat mounts are retained.

STAGE 4 / PARTS

Identify your components

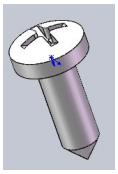
Match each reference and quantity to the drawing for this stage.

REF 1 **QTY 1**



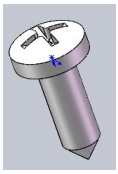
Socket-head screw M10 × 60

REF 2 **QTY 6**



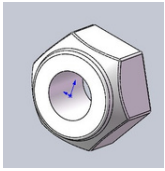
Cross-groove disc head self-tapping screw

REF 3 **QTY 12**



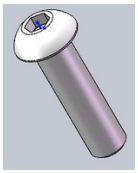
Cross-groove disc head self-tapping screw

REF 4 **QTY 1**



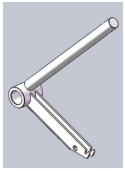
Locknut M10

REF 5 **QTY 4**



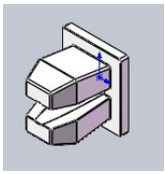
Socket-head screw M8 × 25

REF 6 **QTY 1**



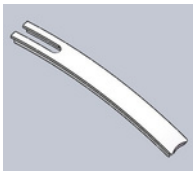
Adjustment frame assembly

REF 7 **QTY 16**



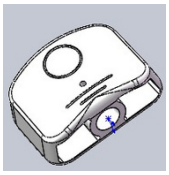
Plastic snap

REF 8 **QTY 1**



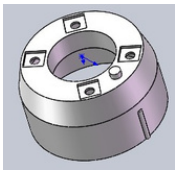
Seat frame baffle

REF 9 **QTY 1**



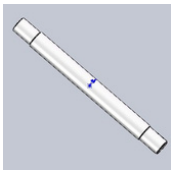
Adjustment handle

REF 10 **QTY 4**



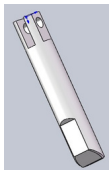
Cover guard

REF 11 **QTY 2**



Long rotating shaft

REF 12 **QTY 1**



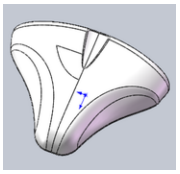
Adjust pin shaft

STAGE 4 / PARTS

Identify your components

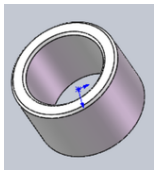
Match each reference and quantity to the drawing for this stage.

REF 13 **QTY 1**



Seat cushion

REF 14 **QTY 4**

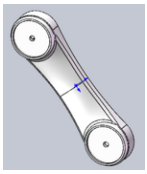


Sintered sleeve

REF 15 **QTY 1**

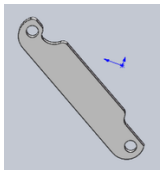
Tension spring

REF 16 **QTY 4**



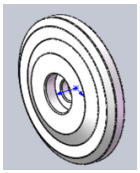
Crank

REF 17 **QTY 1**



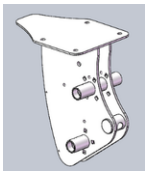
Adjust connecting plate

REF 18 **QTY 4**



Aluminum cap

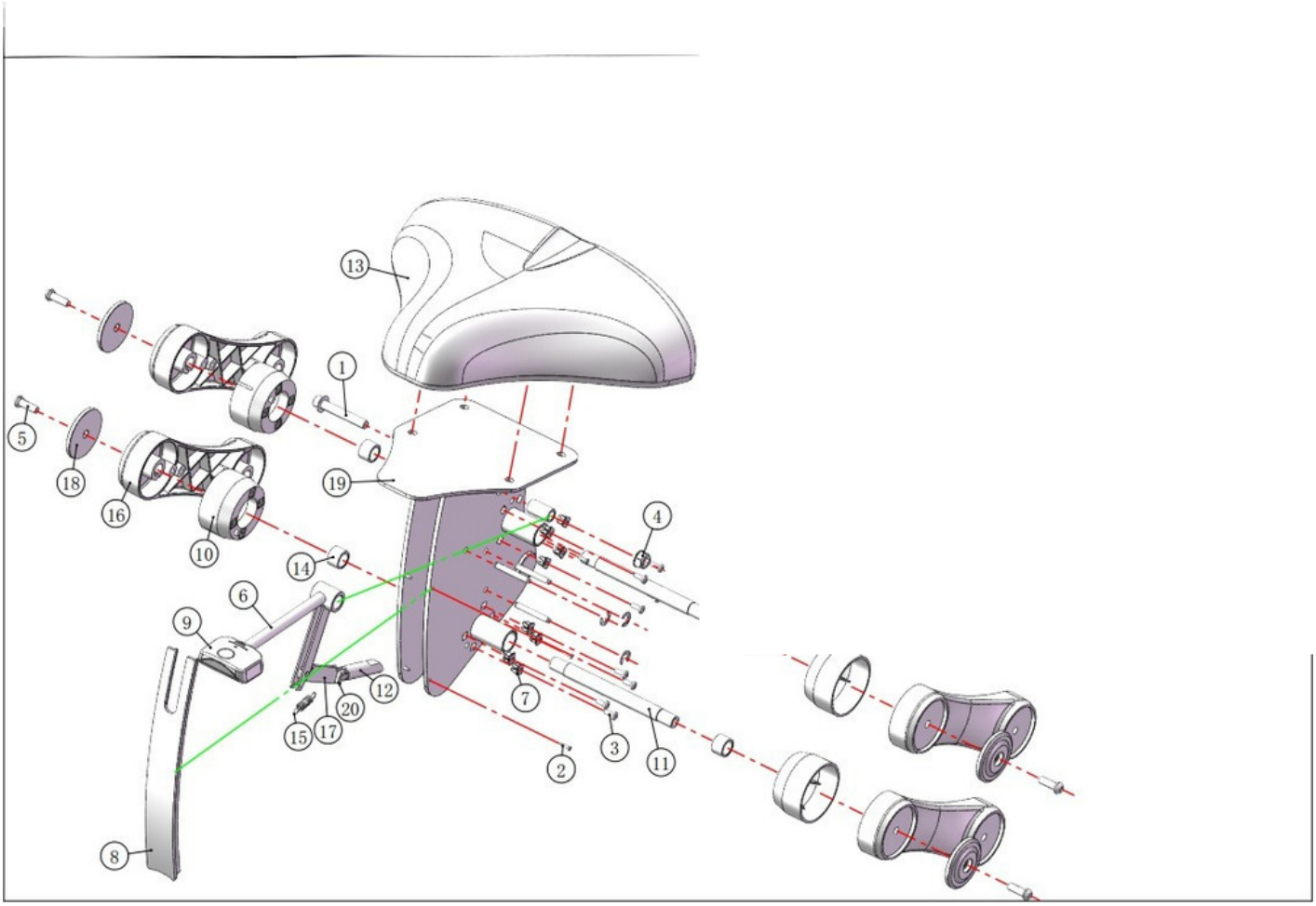
REF 19 **QTY 1**



Seat frame assembly

STAGE 4 / DRAWING 1 OF 1

Assembly stage 4



Match the numbered callouts to the Stage 4 parts list. Position the components as shown and use the listed hardware at each connection.

Stage 4: Assemble the Seat Linkage

Use Stage 4 references and confirm all spring and linkage settings before removing supports.

14. Fit the cranks and seat shafts
Support seat frame 19. Fit bushings 14, shafts 11 and four cranks 16 in the shown order, then aluminum caps 18 and M8 × 25 screws 5. Keep the crank pairs aligned and supported until connected to the main-frame shafts.

15. Assemble the adjustment handle
Fit adjustment frame 6, handle 9, adjustment pin shaft 12 and connecting plate 17 as illustrated. Fit tension spring 15 at its depicted connection using the confirmed spring specification. Fit M10 × 60 screw 1 and locknut 4 at the shown joint. Callout 20 is missing from the list; confirm that component before completing the mechanism.

16. Fit the cushion and linkage guards
Fit seat cushion 13 to frame 19 using its confirmed supplied fasteners; these are not separately identified in the list. Fit guard covers 10, snaps 7 and seat baffle 8 with the illustrated screws 2 and 3 after inspecting the linkage. Confirm both self-tapping screw sizes.

17. Check adjustment engagement
With the seat supported, operate the handle and confirm the linkage moves freely and locks fully into the adjustment rack. Check every shaft end, crank and spring connection. Do not load the seat if the lock remains partly engaged or any spring setting is unconfirmed.

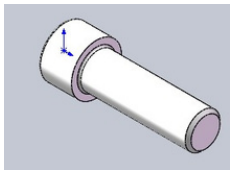
Check before continuing
Seat cushion, cranks, shafts, guards and adjustment lock are secure.

STAGE 5 / PARTS

Identify your components

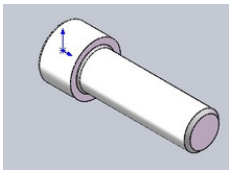
Match each reference and quantity to the drawing for this stage.

REF 1 **QTY 8**



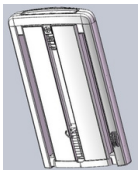
Socket-head screw M10 × 25

REF 2 **QTY 4**



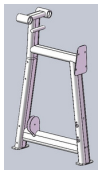
Socket-head screw M10 × 85

REF 3 **QTY 1**



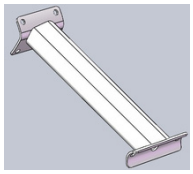
Small door assembly

REF 4 **QTY 1**



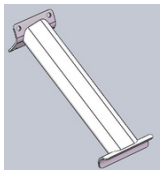
Main frame assembly

REF 5 **QTY 1**



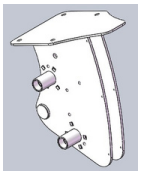
Upper connecting braces assembly

REF 6 **QTY 1**



Lower support assembly

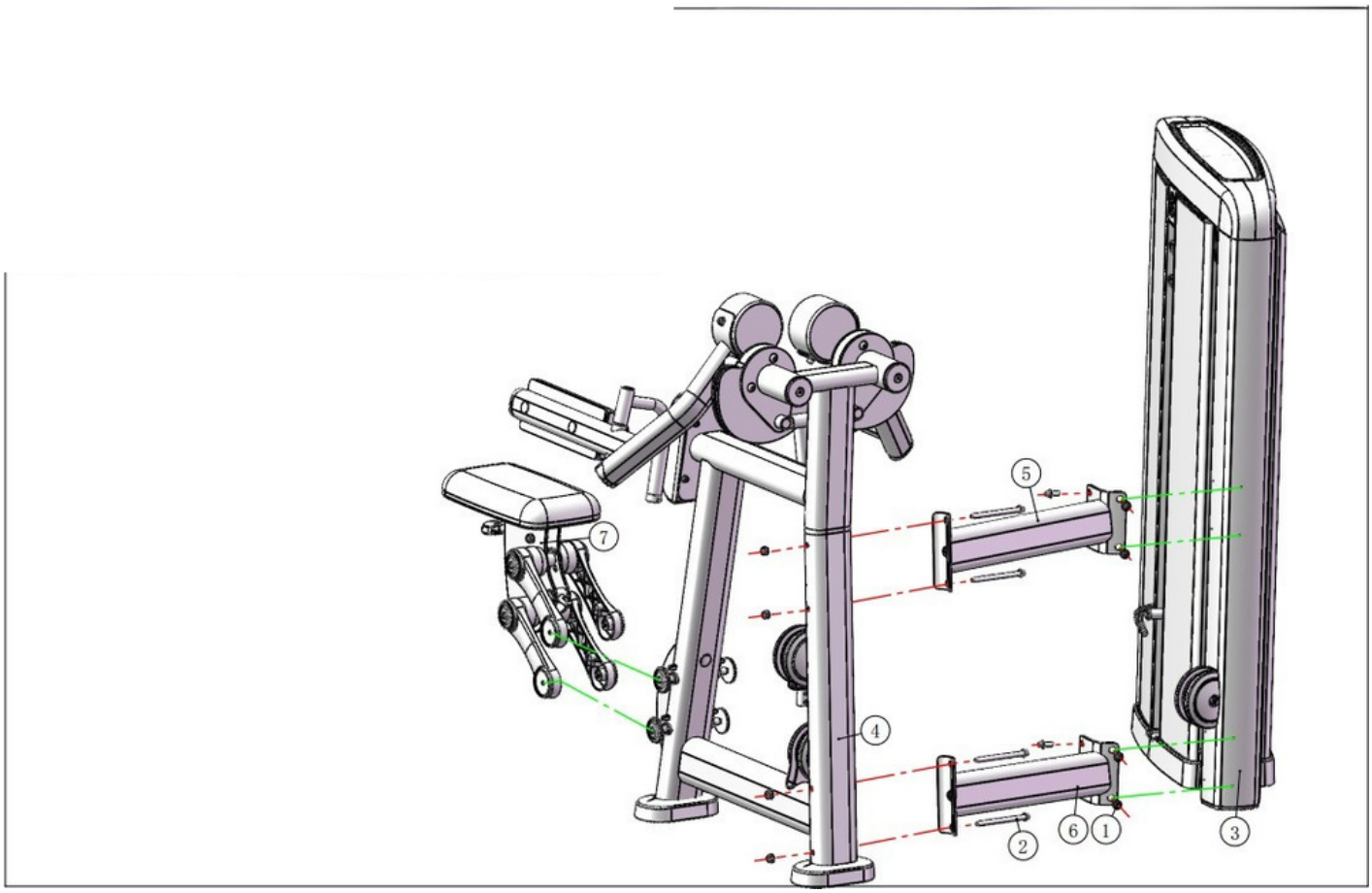
REF 7 **QTY 1**



Seat frame assembly

STAGE 5 / DRAWING 1 OF 1

Assembly stage 5



Match the numbered callouts to the Stage 5 parts list. Position the components as shown and use the listed hardware at each connection.

Stage 5: Connect the Tower and Seat

Use Stage 5 references. Keep the seat and arms supported until all their retainers are verified.

18. Join the tower and exercise frame
Support tower 3 beside main frame 4. Position upper connecting brace 5 and lower brace 6 at the illustrated mounts. Install the eight listed M10 × 25 screws 1 and four M10 × 85 screws 2 at their depicted joints; confirm any mating hardware omitted from the list.

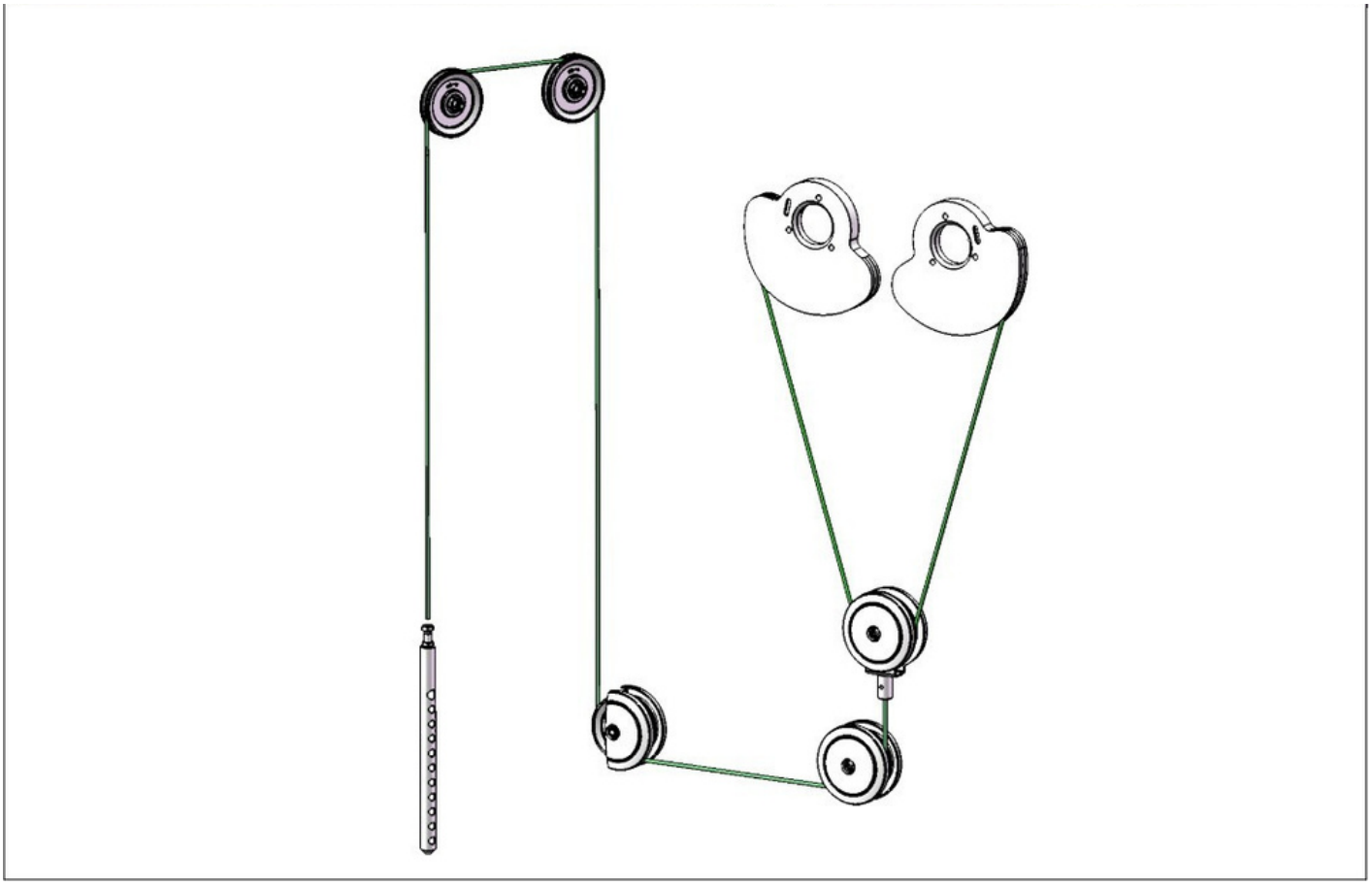
19. Connect the seat linkage
Support seat assembly 7 and connect its crank pairs to the main-frame shafts in the illustrated orientation. Confirm the Stage 3 and Stage 4 caps, bushings, retainers and adjustment spring settings. Operate the handle and check that the pin locks fully into the curved rack at every intended setting.

20. Align and secure the assembly
Check both frames stand evenly and the braces seat fully, then secure the structural joints to the confirmed specifications. Confirm the two lifting arms, seat, cushion and pulleys clear the frame throughout their intended motion. Keep the stack down for cable installation.

Check before continuing
The frame connections, seat lock and arm retainers pass inspection.

STAGE 6 / DRAWING 1 OF 1

Assembly stage 6



Trace both cable routes using the schematic and the following instructions.
Confirm all cable terminations and adjustments before applying tension.

Stage 6: Route the Cables and Test

Resolve all missing hardware and adjustment specifications before the machine enters service.

21. Route the stack cable
With the stack down, trace the schematic from the stack over both tower-top pulleys, down around the low redirect and across the lower frame pulley to the lower attachment of the floating pulley assembly. Confirm this attachment and the stack terminal against the supplied kit before tensioning.

22. Route the arm cable
Follow the second route from one upper arm cam down around the floating pulley and up to the opposite cam. Match each cam groove and terminal to the supplied assembly. Check that every cable remains in its intended groove and clears both the arms and seat mechanism.

23. Verify cable settings and close guards
Confirm all cable terminals, locking hardware and pulley retainers. The source omits cable lengths and complete tension settings; obtain these for loose or uncertain cables. Fit the Stage 1 tower guards 8 and 9 with the confirmed screws 25 only after inspecting both routes.

24. Test at the lowest resistance
Confirm fastener torque and floor-fixing requirements. Fully lock the seat, select the lowest stack load and raise and lower each arm slowly, then both arms together. Check smooth stack lift and full return without slack, binding or cover contact. Stop if a cam, counterweight, retainer or seat lock shifts.

Check before continuing
Both arms, both cable routes, seat adjustment and all guards pass inspection.

FINAL CHECK

Ready for the first use?

- [ ] **Frame and hardware**

  Confirm that the frame is stable, all required hardware is installed and all connections are secure.

- [ ] **Adjustments and safeties**

  Check that adjustment pins, locking mechanisms and any safety stops engage fully. Verify that pads and handles are secure.

- [ ] **Moving parts**

  Carefully check the full range of movement. Confirm that moving assemblies clear the frame and guards without binding.

- [ ] **Product-specific inspection**

  Check the cable path, guide retention, pads and every adjustment lock.
  The stack must lift and return fully, with all guards and connections secure.

- [ ] **Keep the equipment ready**

  Inspect before every use. Wipe contact surfaces dry after use. Have a qualified technician address damaged parts, unusual movement or noise before further exercise.

Need help with assembly?

Contact Build A Gym with your product name, assembly stage, part reference and a clear photo of the issue.

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