STAPLE HERE

O – HOLE PUNCH TO ATTACH DOCUMENT TO DRIVETRAIN

READ THIS BEFORE UNPACKAGING YOUR PRODUCT!

COMPONENT VERIFICATION CHECKLIST

AND ASSEMBLY INSTRUCTIONS

FORCE 3 SERIES ASSEMBLY

NOTE: SOME IMAGES USED ARE FOR REFERENCE ONLY.

Serial Number Sticker:

QA TO PLACE SERIAL LABEL HERE

To Get Started:

1) Remove several pieces of the packaging foam and place them on top of a large surface/table (at least 6' x 4') to protect the parts from damage and scratching once removed from the box. It is recommended to use a table and have a second person to make assembly easier.
2) Remove the drive train assembly and place on foam.
3) Remove the frame assembly and backrest and place on foam.
4) Unseal the parts boxes, which should include small components and "Small Component Verification Sheets", as well as some of the large components below.
    a. **NOTE: Some boxes may be empty which are used as filler material in packaging.**
5) Use the "Large Component and Accessory" verification checklist below to verify that all major components are present.
6) Once you've confirmed that all large components are present, proceed to the "Small Component Verification" step.
    a. If you discover any components are missing, please contact our Customer Service Department with your serial number and the Part Number / Description of the missing components. topendorders@invacare.com

Large Component Verification and Accessory Checklist (QA and Customer)

	QUALITY CHECKLIST	CUSTOMER CHECKLIST
1)	☐Frame Assembly (1)	☐
2)	☐Drivetrain (1)	☐
3)	☐Footrests (2)	☐
4)	☐Backrest (1)	☐
5)	☐Rear Wheels (2)	☐
6)	☐Bumper (found in wheel box) (1)	☐
7)	☐Safety Flag (found in wheel box) (1)	☐
8)	☐Accessories (if applicable)	☐
9)	☐Small Component Bags with Verification Sheets (4)	☐

QA Signature & Date:

_____

Small Components and Verification

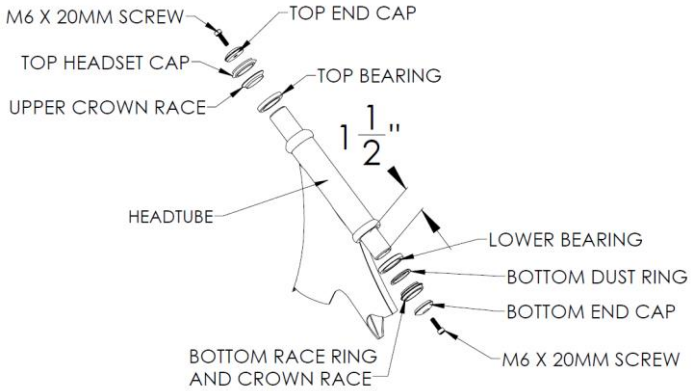
1) For each “Small Component Bag” (1-4), remove the verification sheet and lay out on a flat and level surface.
2) Remove small components from bag and place them on the verification sheet in their outlined areas.
    a. **NOTE: From hereon we will refer to the “Small Component Verification” sheet and their associated components by the sheet number located at the top right-hand corner of the page.**
3) Once you’ve confirmed that all small components are present. Proceed to the assembly instructions.
4) If you discover any components are missing, please contact our Customer Service Department with your serial number and the Part Number / Description of the missing component(s). topendorders@invacare.com

Preparing for Assembly

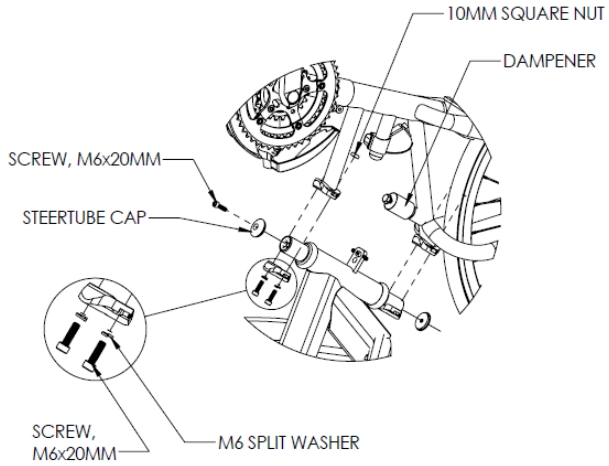
1) Your product has shipped with the basic tools required to assemble your product. We do recommend you also have the following tools to optimize the assembly process.
    a. Sharp Scissors or Side Cutters
    b. Torque Wrench
    c. Medium/Large flathead screwdriver
    d. Tape Measure
    e. Air Pump
    f. Ratcheting Wrenches and Hex Keys for ease of use
    g. Some good music, an amusing friend and your drink of choice…

Are you ready? Cool… Let's do this.

1. **Fork and Frame Assembly**
    a. Take the steer tube assembly from **[SHEET #2].**
    b. Remove top end cap, top headset cap, upper crown race ring and top bearing from steer tube assembly – leaving lower headset assembly components intact.
    c. Install the steer tube assembly into the frame following Figure D. Once installed, position the steer tube with approximately 1-1/2" protruding out from the bottom of the headtube.

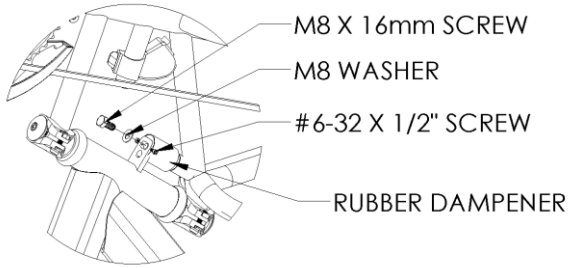


    d.
    e. Reinstall the upper headset assembly components following figure D. You will need to ensure that the headset components are positioned as closely to the head-tube as possible. If done correctly, you should no longer be able to see the bearings. You can also use the "Small Component Verification" sheet for a more detailed view of the component orientation.
    f. Take the packing insert which the drivetrain front wheel was secured in and place it under the front of the frame to raise the steer tube from your work surface a couple of inches. If assembling on a large table, positioning the frame so that the steer tube is at the edge of the table will negate the need to prop up the front of the frame.
    g. Install the drivetrain to the frame using a 5mm Allen Key from **[SHEET #1]** and fork hardware from **[SHEET #2].** Start by placing the fork on the steer tube (having two people for this part is helpful – one person to hold the drive train and the other to attach the clamps).
    h. Using the clamp from **[SHEET #2]**, position the free clamp beneath the bottom welded clamp on the fork and connect clamp with hardware. The screws and washers should be installed from the underside of the fork, with the flat of the square nuts against the clamps that are welded to the fork. Finger tighten the hardware
    i. Ensure that the headset is fully seated in the head tube and that the top and bottom end caps on the steer tube are outside of the welded fork clamps
    j. Using the other clamp from and hardware from **[SHEET #2]**, attach the top clamp and finger tighten the hardware
    k. Gently pivot the drive train to one side of the frame and let it set it there



    i.
    l. Tighten the upper and lower endcaps to compress the headset.
        i. **NOTE: Verify there is a small gap between the steer tube and the end caps on both the top and bottom of the assembly. If not, you can pull the steer tube up/down by tightening the cap on the opposite end and losing the cap on the end you're pulling away from. If you're having difficulty making this adjustment, you may need to loosen the clamp hardware so that the steer tube can move.**
    m. After both end caps are tightened, tighten the fork clamps (recommended torque: 8-9 N.m.)

n. Install dampener hardware from **[SHEET #2]** using the 13mm wrench and 7/64” Allen key from **[SHEET #1]**



i.

o. Install and finger tighten the M8 X 16mm Screw with the M8 Washer.

p. Install the #6-32 x 1/2" screws. Hold the drivetrain straight in-line with the frame. Use the 7/64” Allen Key to adjust the screws until the dampener holds the drivetrain straight in-line with the frame on its own.

q. To secure the dampener, hold the rubber dampener to prevent from rotating/tearing and tighten using the 13mm wrench.

   i. **NOTE: If the fork leans excessively to the right, the dampener may have twisted. Try to loosen and retighten the dampener while holding it secure to prevent twisting.**

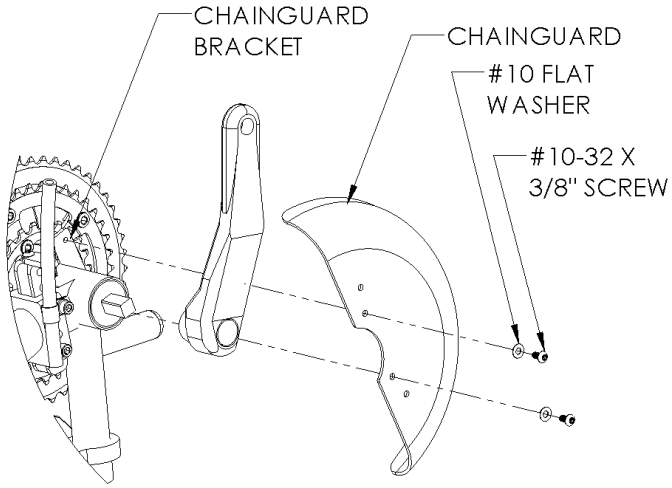
2. Chainguard

a. Remove packaging materials from around spindle, attached crank arm, and from around the chainring using a pair of scissors or side cutters.

b. Install the chainguard on the left side of the chain guard bracket (see next page, figures e and f). Use a 1/8” Allen Key from **[SHEET #1]** to install the chainguard and hardware from **[SHEET #4]** as seen on figure below.

c. Starting with the lower screw, finger tighten screws through the chainguard into the mounting bracket on the fork

d. Use the 1/8” Allen Key from **[SHEET #1]**, tighten both chainguard mounting screws.



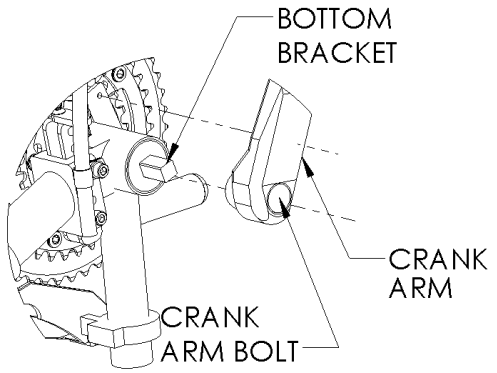
e.

3. Crank Arm

NOTE: If V-Crank Conversion Kit was included with this handcycle, please refer to the V-Crank Conversion Kit Instructions for crank arm installation instructions for the crank arm and skip this section.

a. Install the crank arm assembly from **[SHEET #4]** using the hardware from **[SHEET #4]** and the 8mm Allen Key from **[SHEET #1]** (Recommended torque spec: 34.5-44 N-m.)

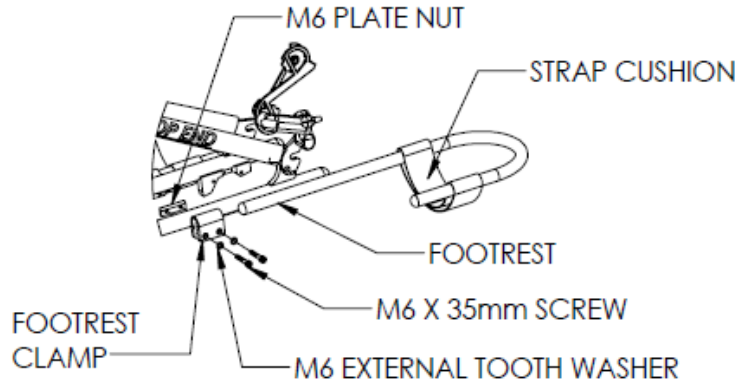
   i. **NOTE: Ensure both crank arms are parallel to each other (this isn’t an upright bicycle buddy).**



b.

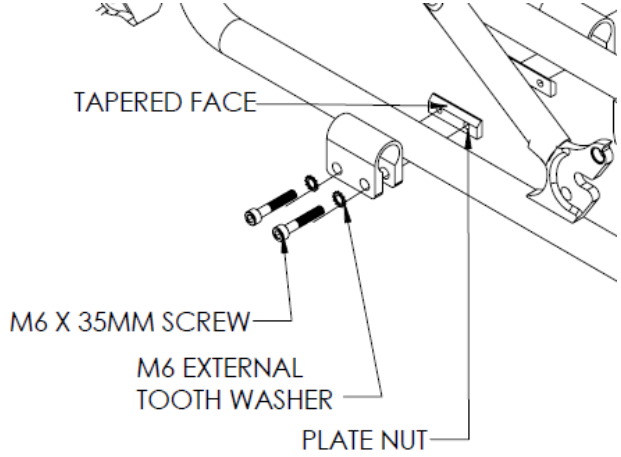
4. **Footrest**

a. Install the footrests by inserting the long end of the aluminum loop into the footrest clamp welded to the side of the fork and ensure that the cushion inside the strap is positioned to be in contact with rider's leg when riding the handcycle.



b.

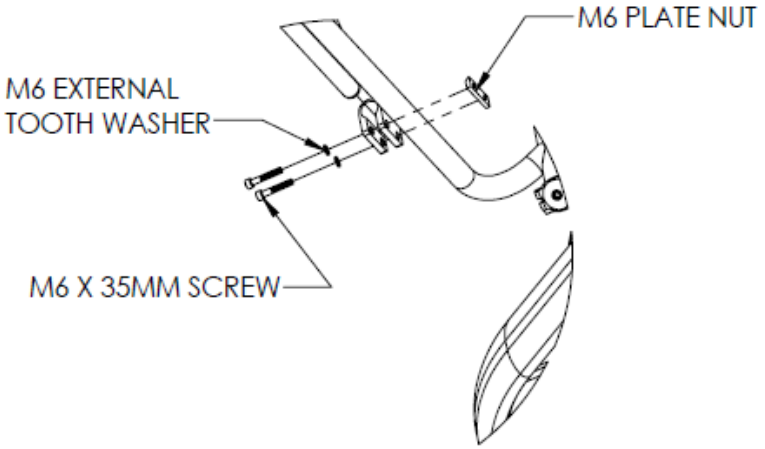
c. Install the hardware from **[SHEET#4]** onto the fork. Begin by placing the plate nut against the backside of the clamp with the tapered face mating against the clamp and footrest tube (see figure c). Then fasten the two M6 X 35mm screws and two M6 external tooth washers through the clamp into the plate nut.



d.

e. Tighten the footrest hardware using the 5mm Allen Key from **[SHEET #1]** (recommended torque 8-9 N.m.)

f. **NOTE: You're going to want to adjust the location of the footrests once the bike is fully assembled and you're able to sit in the bike. …for now, just estimate the location.**



g.

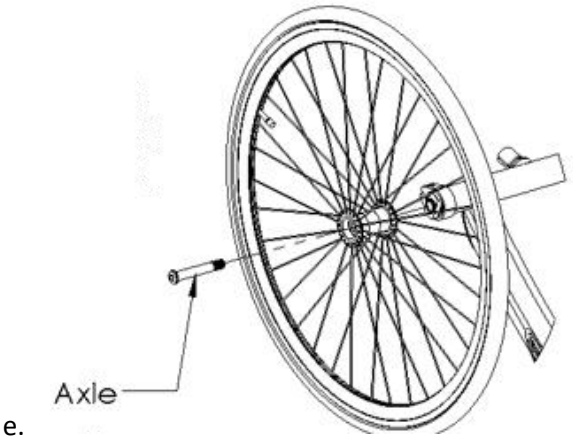
5. **Wheels and Tires**

a. Remove the packaging foam from each end of the camber tube if it's still in place.

b. Insert the 1/2" axles from **[SHEET #3]** into counter-sunk side of each rear wheel.

c. Insert the axle (with the wheel on) into axle receivers in the camber tube ensuring that axles are going in straight to prevent cross threading which could damage the axle receivers and/or axles.

d. Tighten the axles using the 1/4" Allen Key from **[SHEET #1]** (recommended torque: 15-20 N.m.)



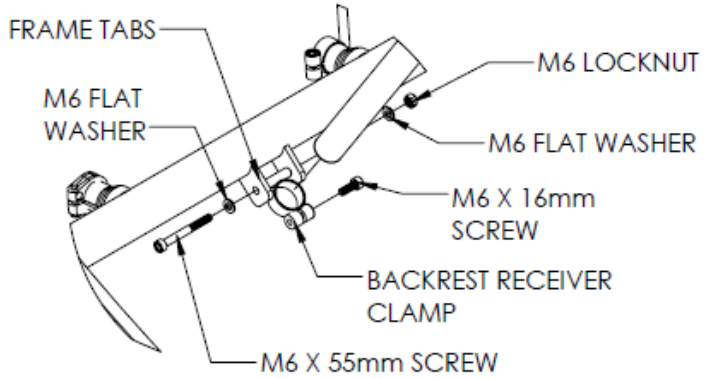
e.

6. Backrest to Mainframe

a. Remove packaging materials from the backrest.

b. Install the backrest to main frame using backrest hardware. from **[SHEET #3]** and both 5mm Allen Key and 10mm Wrench from **[SHEET #1].**

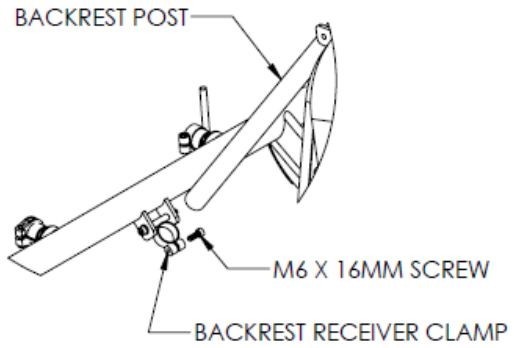
c. Align the backrest receiver clamp from **[SHEET #3]** with the holes in the tabs in the back of the frame and then insert the M6 x 55mm from **[SHEET #3]** screw all the way through. Use M6 washers and locknut from **[SHEET #3]** with the screw as shown in the figure below.



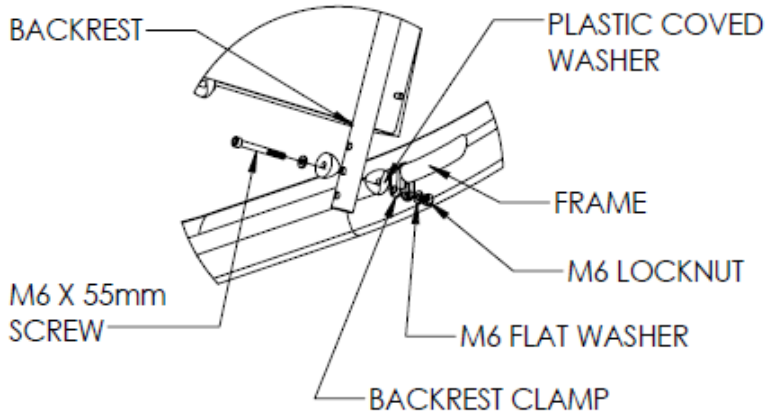
d.

e. Tighten the M6 locknut from **[SHEET #3]** using a 5mm Allen key and a 10mm wrench from **[SHEET #1]** (recommended torque: 8-9 N.m.)

f. Insert backrest post into the backrest receiver clamp. Set back angle to preference and then fasten with the M6 X 16mm screw from **[SHEET #3]** using the 5mm Allen key from **[SHEET #1]**.



g.



h.

i. Cut the cable ties securing the backrest clamps on the side rails on the frame and move them to a desired location.

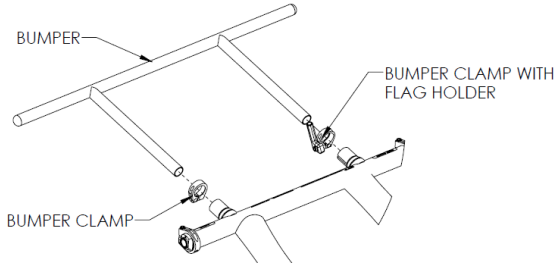
   i. Work from the center of the frame outward with hole in backrest clamp towards the bottom of the frame. Using hardware from **[SHEET #3]**, insert the M6 x 65mm screw through M6 flat washer, plastic coved spacer, center hole of the backrest tube, other plastic coved spacer, clamp, M6 flat washer and finally the locknut. Finger tighten hardware.

   ii. Repeat these steps for other wise of backrest

   iii. Tighten clamp hardware using the 10mm wrench and 5mm Allen key from **[SHEET #1]**

      1. **NOTE: Do not tighten one side all the way until backrest has been attached to both sides of frame with hardware finger tightened**

7. **Bumper Installation**
    a. Remove packaging materials from camber tube at rear of frame assembly.
    b. Slide the bumper clamp with flag holder onto the bumper receiver on the rider's right-hand side
    c. Slide the bumper clamp without the flag holder onto the bumper receiver on the rider's left-hand side
    d. Slide the bumper through the clamps into the bumper receivers.
    e. Once the bumper has bottomed out against the camber tube, tighten the bumper clamp using the 4mm Allen Key and the bumper clamp with safety flag mount using the 5mm Allen Key from **[SHEET #1]** ensuring that the flag holder remains vertical. (Recommended torque: 8-9 N.m.)
    f.



8. **Tire Inflation**
    a. Remove the valve stem cap
    b. Loosen up needle to outward position
    c. Thread on valve stem adapter
    d. Inflate tires using a standard Schrader air nozzle with a presta valve adapter or a presta valve nozzle (do not exceed recommendations embossed on tire). We recommend approximately 80 psi and then fill to preference)

9. **Final Safety Check**
    a. Refer to user manual for all associated risks before using a handcycle.
    b. Verify tire inflation
    c. Double check that all fasteners are secure
    d. Verify braking functions
    e. Install safety flag
    f. Ensure footrests are adjusted and secured
10. **Rock and Roll!**