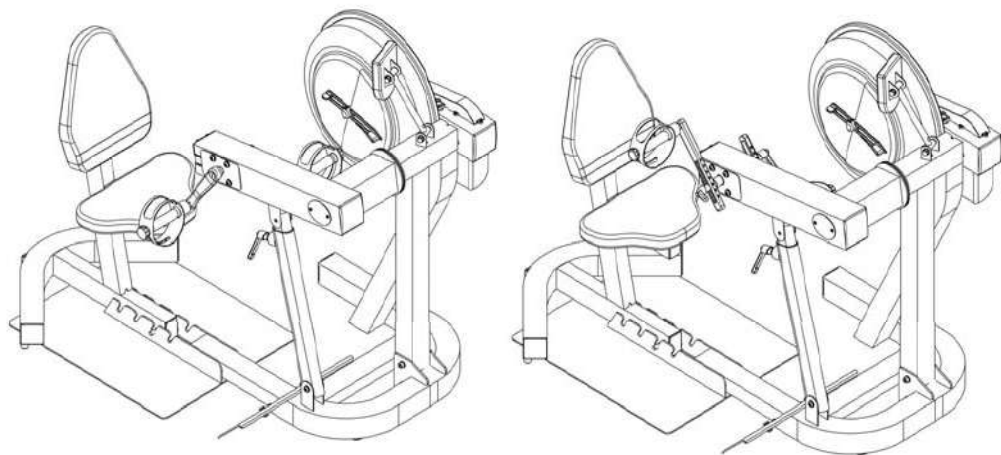
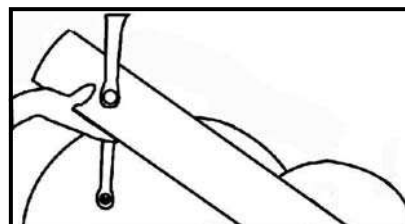


Training with E820/E920



As with any piece of fitness equipment, consult a physician before beginning your E820/E920 exercise program.

CAUTION



Use two hands and follow all safety instructions whenever raising or lowering the E820/E920 control arm.

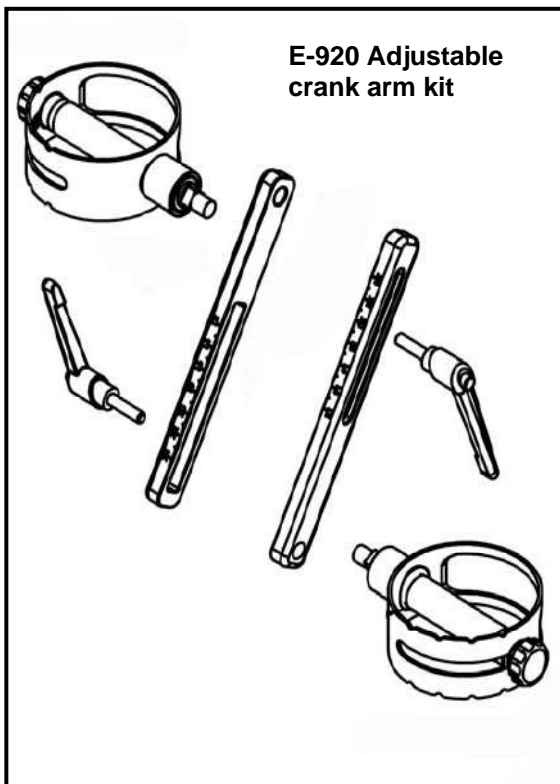
Warning

Do not remove hands while crank is in motion. The crank will continue to rotate and could cause injury.

Contents

1. Contents of E820/920 Box.
2. E820/E920 assembly instructions.
3. E820/E920 Control arm.
4. E920 Adjustable crank arms.
5. Tank filling and water treatment.
6. Long term water treatment and basic operation.
7. The E820/E920 Ergometer.
8. Maintenance/Troubleshooting.
9. Tank belt drive adjustment.
10. Parts list and Warranty.

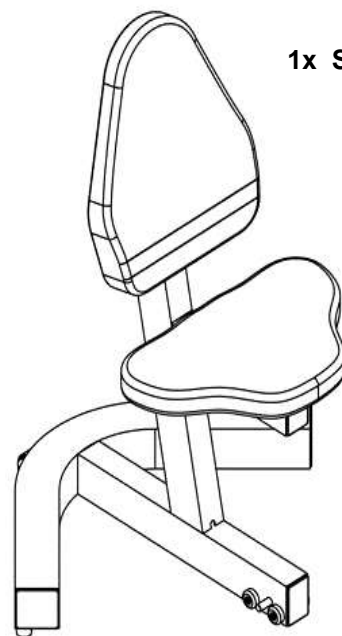
Box Contents E820/E920



(E-920 only) Adjustable crank arm kit includes 2x 300mm aluminum crank arms, 2x 10mm L-pins, and separately installed left/right pedals.

Note the E-820 uses standard fixed length crank arms as pictured in the mainframe drawing above.

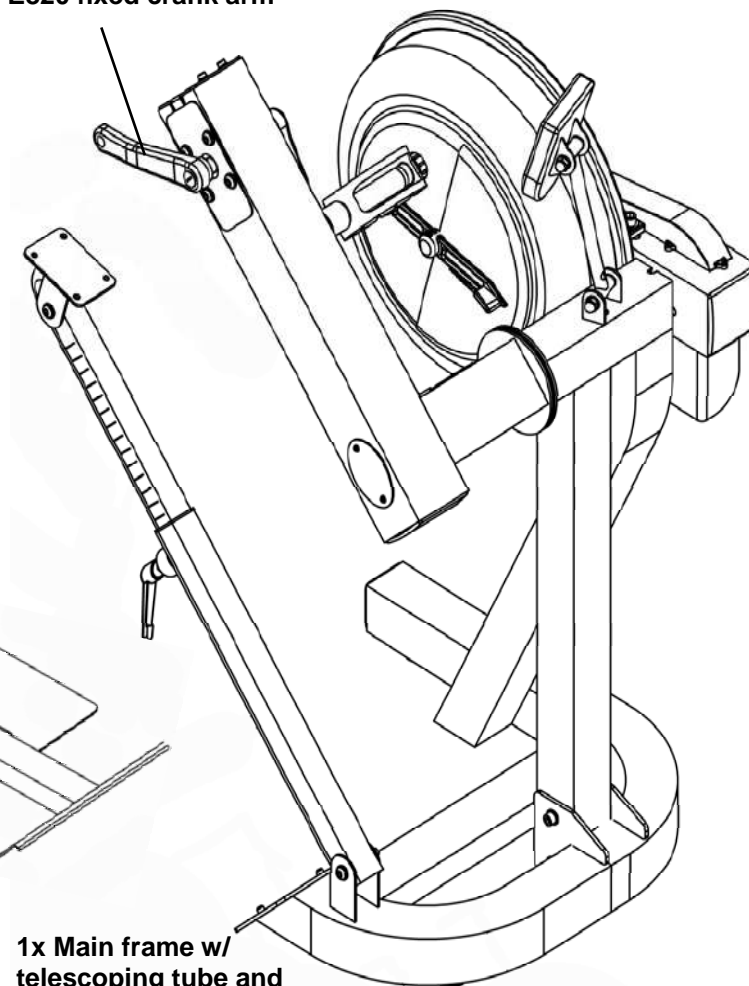
1x Seat and base



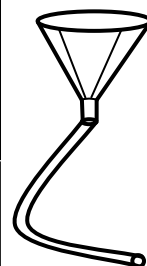
1x Right crank pedal



E820 fixed crank arm



1x Main frame w/ telescoping tube and internal gas assist shock

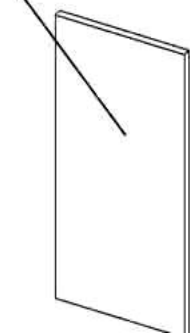


1x Fill funnel/hose



3x Frame levelers

Owners manual



2x AA batteries



Chlorine tablets x8



Touch up paint



Blue dye



Hex Key

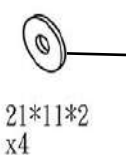


M6x1

Mainframe bolts

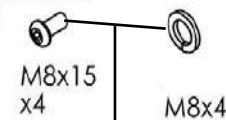


M10*25 x2



21*11*2 x4

Frame bolt washers

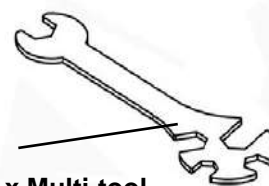


M8x15 x4

M8x4

Telescoping tube attachment bolts/spring washers

1x Multi-tool



2x Mainframe Nylock nut



M10*2

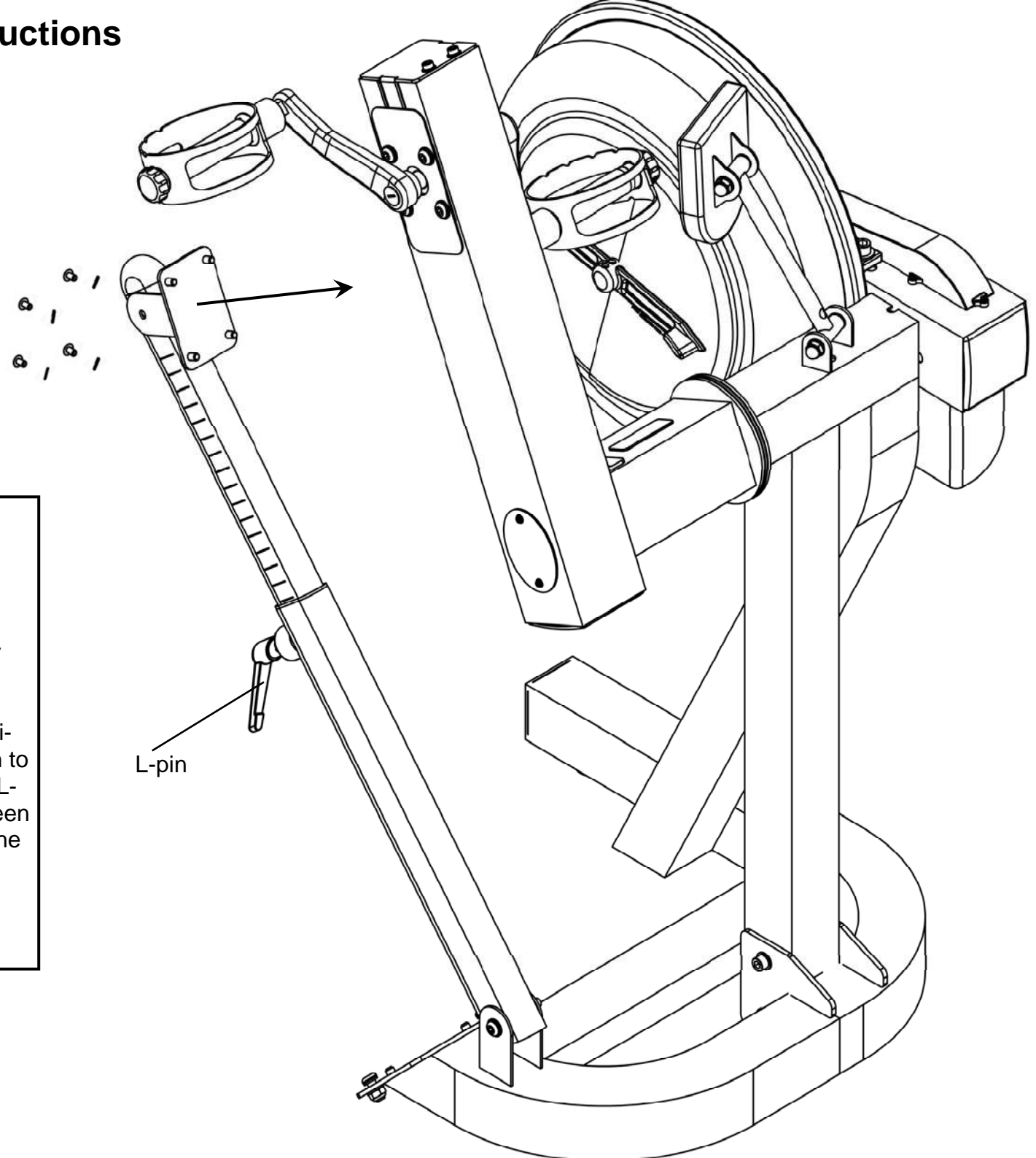
E820/E920 Assembly Instructions

4

Step 1: Remove contents from box. Attach telescoping tube to the underside of the control arm using 4x M8x15mm bolts and 4x M8 spring washers.

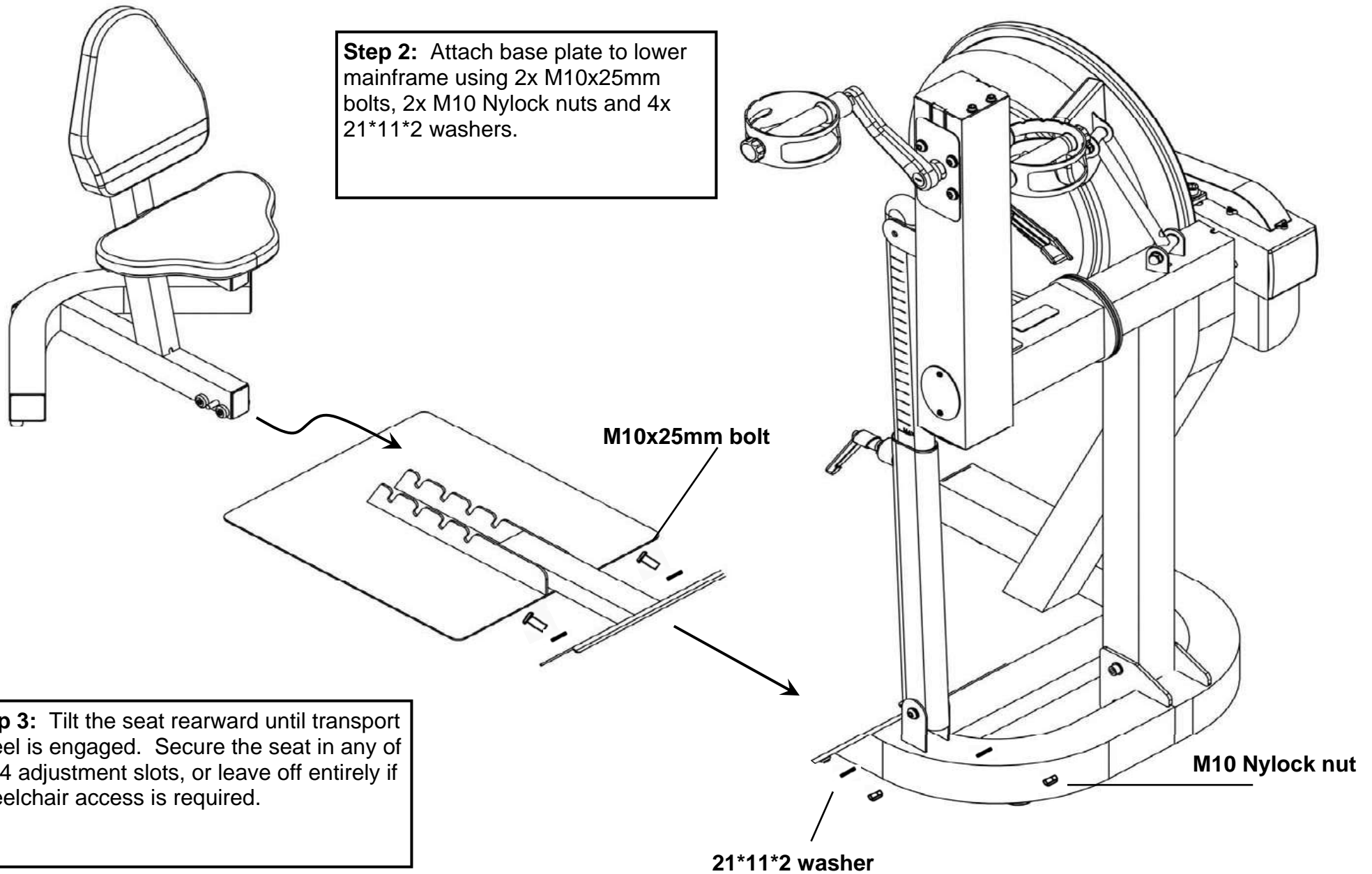


The control arm is heavy and may swing freely during this stage of assembly. The L-pin is pre-tightened from the factory in the optimal position for assembly in relation to the control arm. Do not loosen the L-pin until the telescoping tube has been safely secured to the underside of the control arm.



E820/E920 Assembly instructions

5

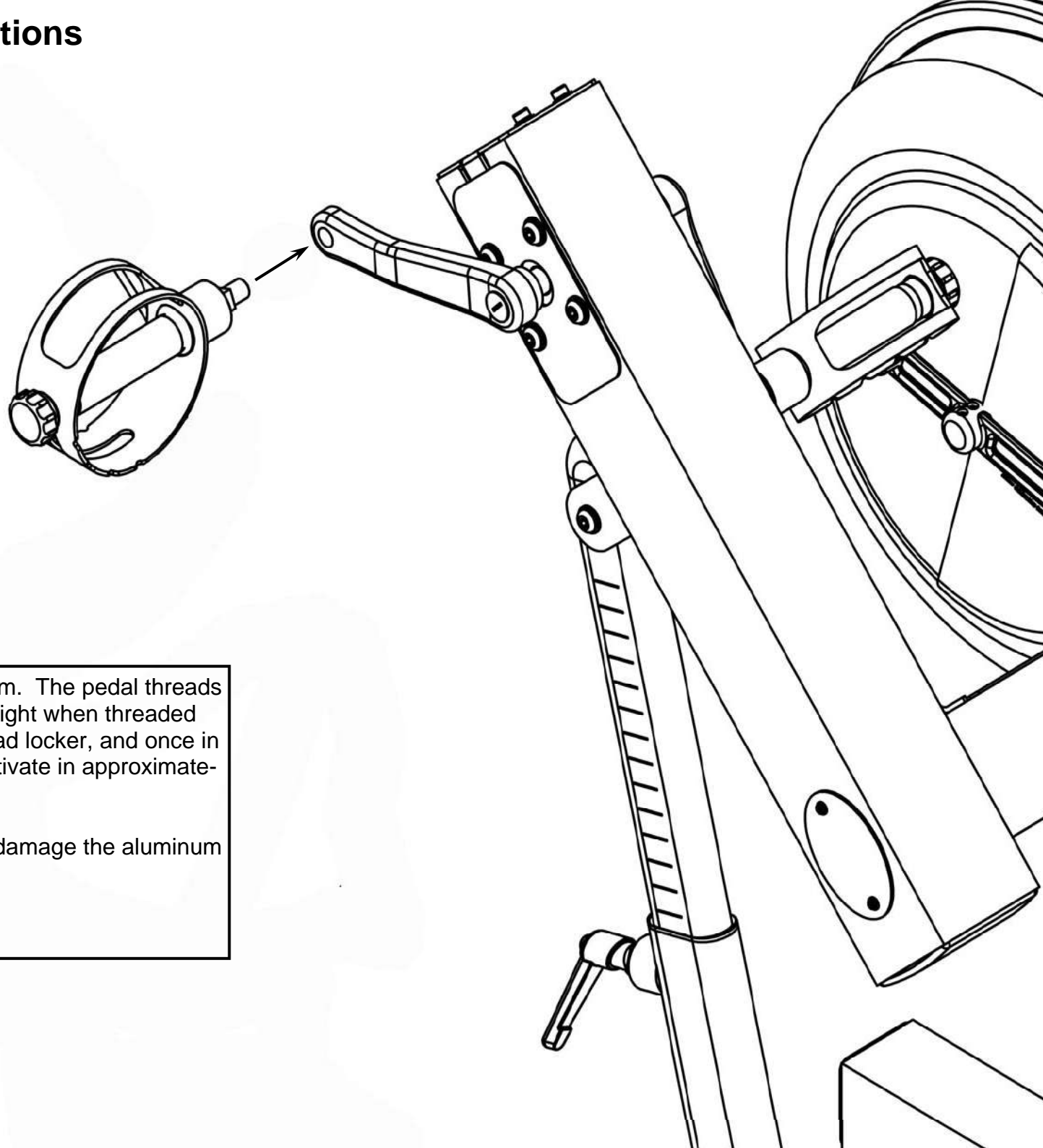


E820(only) Assembly Instructions

6

Note: Allow 15 minutes for the thread locker to activate before first time use.

Check pedal tightness periodically thereafter with a 15mm wrench.



Step 4: Secure right pedal onto Crank arm. The pedal threads have a green coating which will feel very tight when threaded onto the crank arm. This is a type of thread locker, and once in contact with the crank arm threads will activate in approximately 15 minutes.

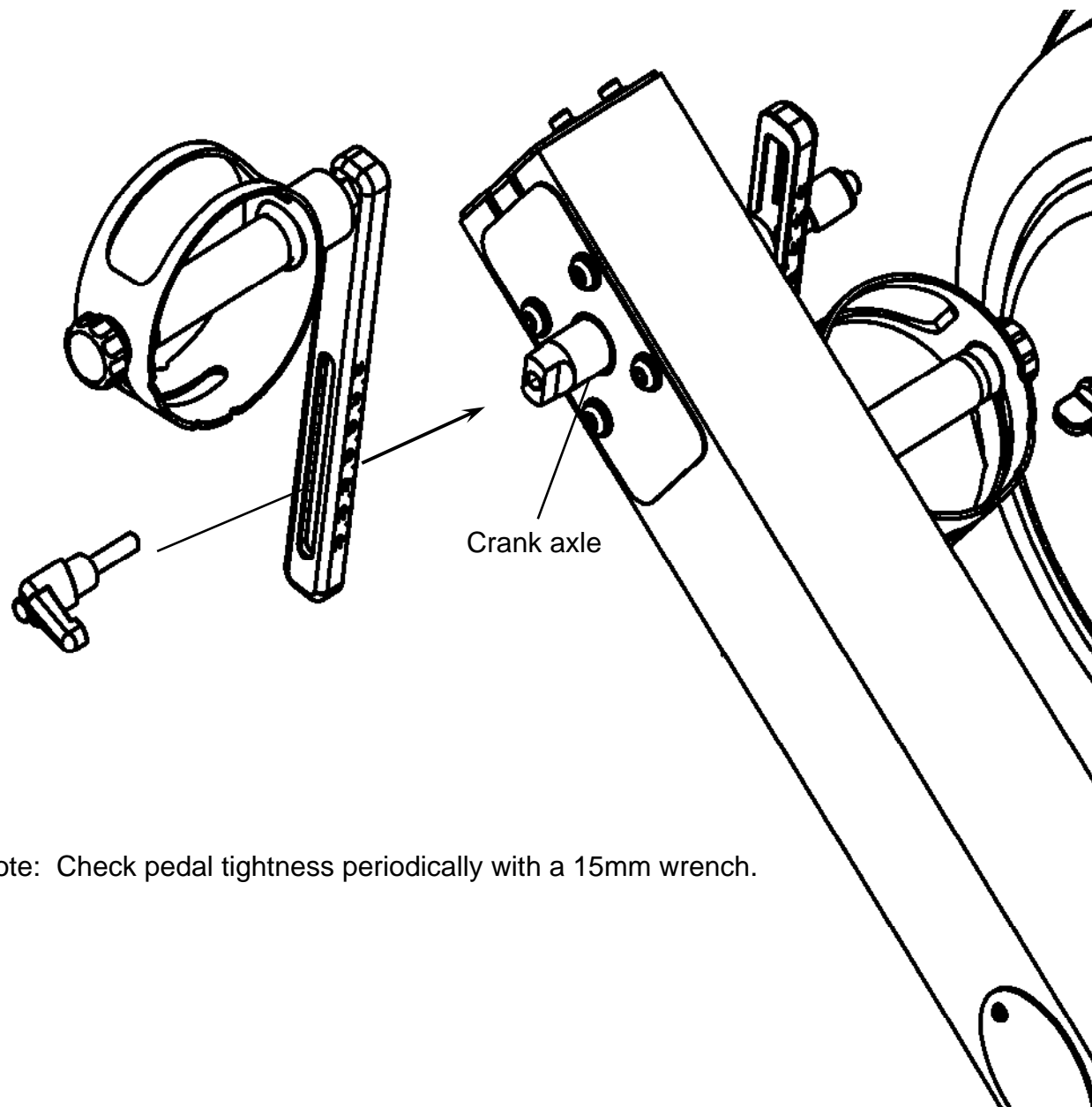
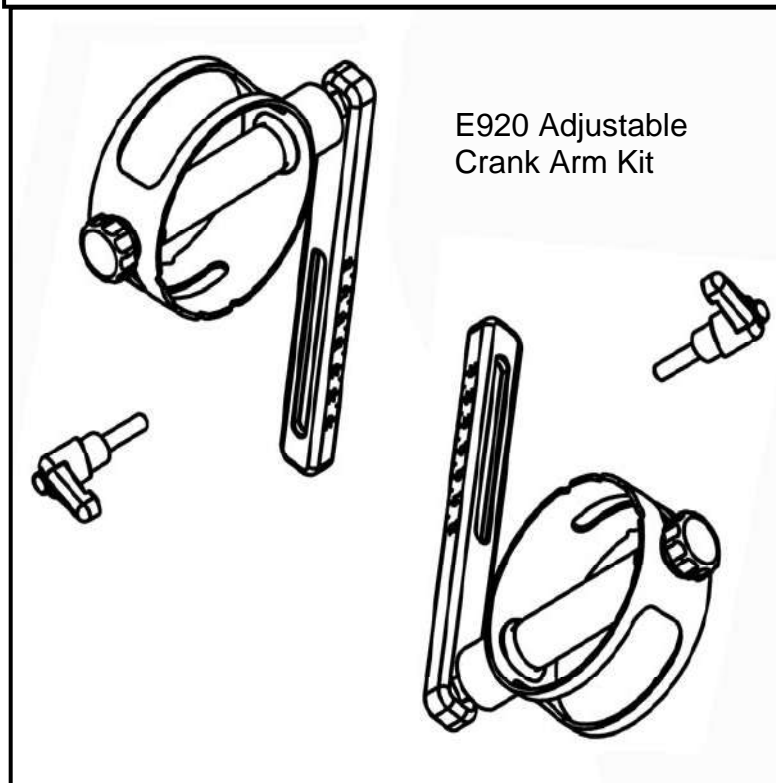
Caution! Extreme over-tightening could damage the aluminum threads on the crank arm.

E920 (only) Adjustable Crank Arm Kit Installation Instructions

7

Step 4: Secure both left and right crank arms onto the crank axle with M10 L-Pins. Note Left and Right crank arms are marked as such on the rear.

(E-920 only) Adjustable crank arm kit includes 2x 300mm aluminum crank arms, 2x 10mm L-pins, and pre-installed left/right pedals.



Note: Check pedal tightness periodically with a 15mm wrench.

The E820 Control Arm

8

Chain tensioning bolts: Allows for tightening the chain or adjustment from side to side. Make sure when tightening only to adjust the same amount for both bolts, otherwise the sprocket will be misaligned.

Note: Tightening the right bolt only will pull the right side of the crank assembly toward you, tightening the left will pull the left side toward you. Use this feature to realign the rear with the front sprocket if needed or when changing to a new chain.


Pedal Handle: Loosen knob to adjust handle position from 0-90 degrees.

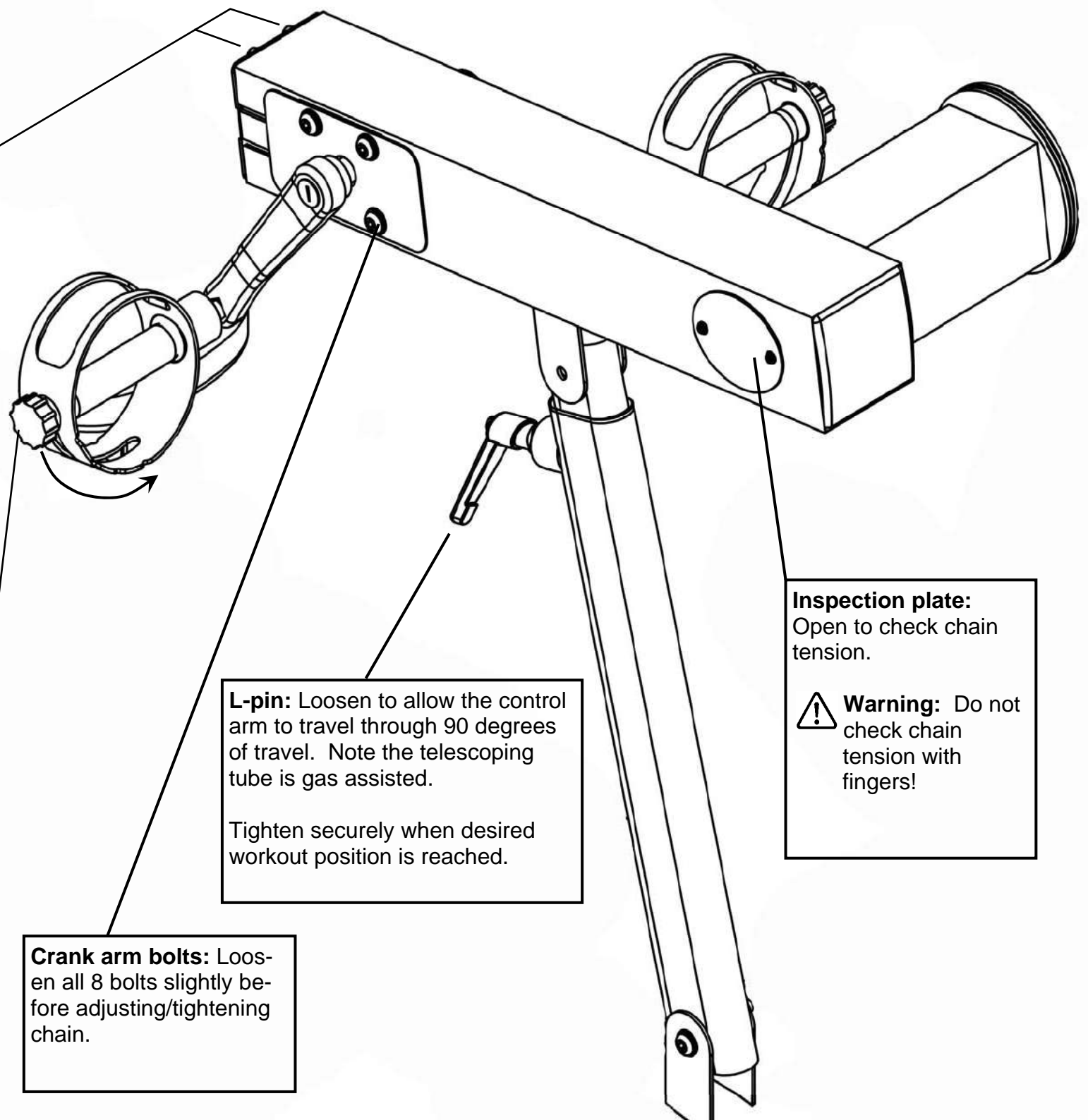
Crank arm bolts: Loosen all 8 bolts slightly before adjusting/tightening chain.

L-pin: Loosen to allow the control arm to travel through 90 degrees of travel. Note the telescoping tube is gas assisted.

Tighten securely when desired workout position is reached.

Inspection plate: Open to check chain tension.

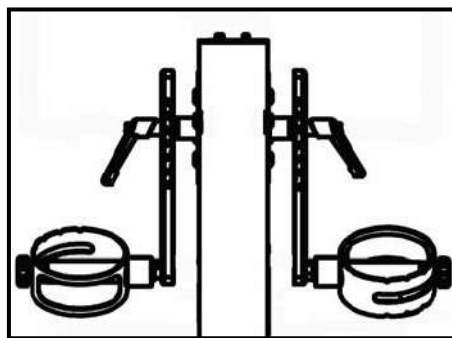
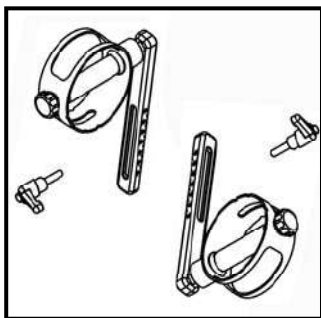
 **Warning:** Do not check chain tension with fingers!



Chain tensioning bolts: Allows for tightening the chain or adjustment from side to side. Make sure when tightening only to adjust the same amount for both bolts, otherwise the sprocket will be misaligned. **Note:** Tightening the right bolt only will pull the right side of the crank assembly toward you, tightening the left will pull the left side toward you. Use this feature to realign the rear with the front sprocket if needed or when changing to a new chain.

Pedal Handle:
Loosen knob to adjust handle position from 0-90 degrees.

E920 Adjustable crank arms: Designed with a full 120mm of travel, the 300mm crank arms are designed for a wide range of upper body workout possibilities. The numbered indentations allow for accurate positioning on both sides throughout the range of travel. One side can also be turned independently to allow for even greater variation during your upper body workouts.



The E920 Control Arm

Crank arm bolts: Loosen all 8 bolts slightly before adjusting/tightening chain.

L-pin: Loosen to allow the control arm to travel through 90 degrees of travel. Note the telescoping tube is gas assisted.

Tighten securely when desired workout position is reached.

Inspection plate: Open to check chain tension.



Warning: Do not check chain tension by hand!

Tank Filling and Water Treatment

10

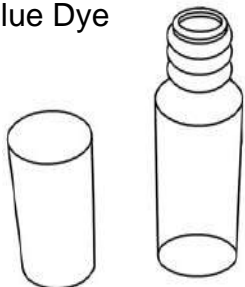
Note: A large bucket is required for filling (Not included)

Open the rear upper yellow tank plug and insert hose into tank (rotating the impeller slightly may be necessary to allow the hose to pass), move the tank adjuster handle to level 20 and begin filling. Do not fill the tank higher than the level indicator on the front of the clear shell. A properly filled tank holds approximately 8 liters of water.



Warning: Do not under any circumstances put fingers into the tank. Use the end of the hose to move the impeller should the need arise.

Blue Dye



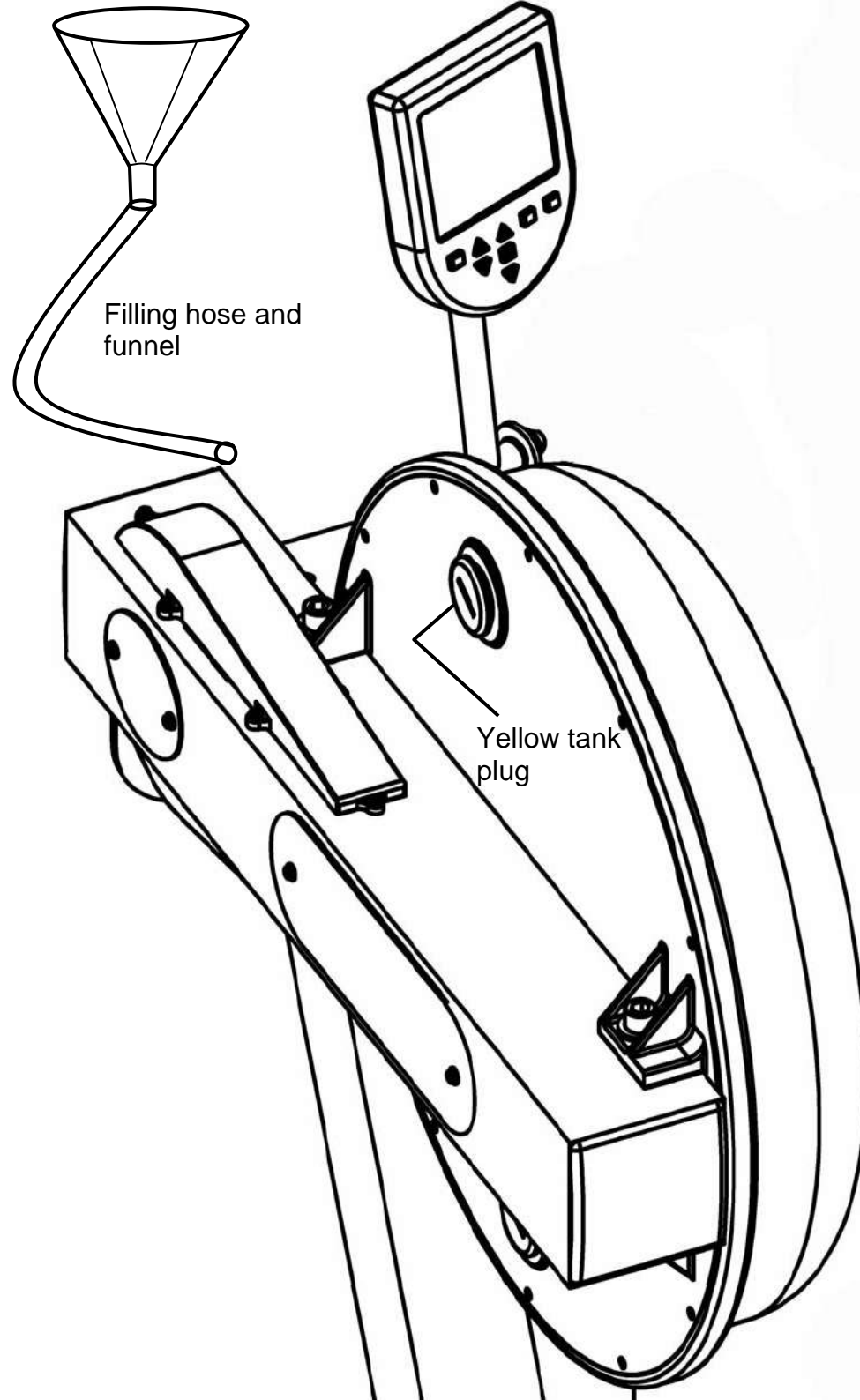
Note: The blue dye is extremely concentrated and will readily stain carpet or clothing.

Water Treatment Procedures:

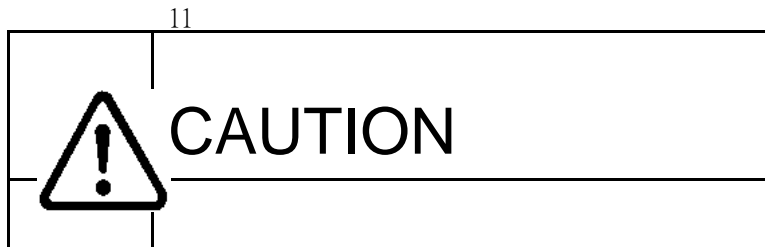
1. Add Chlorine tablet.
2. **Wait a minimum of 72 hours.** Then add very small amount of blue dye and check for desired color. **Important! Do not add blue dye for at least 72 hours following Chlorine treatment.** The blue dye adds visual appeal as well as cutting down the amount of light affecting the tank water, thus extending the amount of time between water treatments.



Caution: Use a drop cloth when filling or adding blue dye



Long Term Water Treatment and Basic Operation



Important: Do not fill past the calibration mark as indicated on the tank level sticker or water spillage may occur. See tank filling/water treatment page for details.

Long term water treatment:

Do not use any water treatment other than the tablets supplied with this machine. For replacement tablets, contact your local First Degree Fitness distributor.

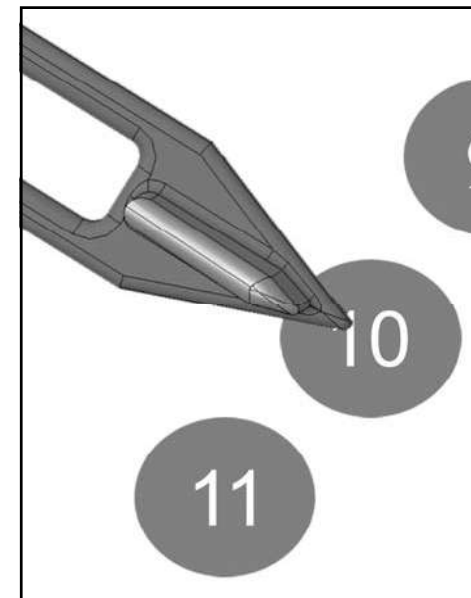
Water treatment schedules for the E820/E920 will vary according to the fluid tanks exposure to sunlight, but expect 8-12 months near a bright, sunlit window and 2 years or more for a darker location. At the point of finding the water slightly cloudy, add a Chlorine tablet. Remember to wait 72 hours following the chlorine tablet before adding the blue dye as the Chlorine tablet is extremely concentrated.

Caution: It is important that a drop cloth be used under the fluid tank whenever the tank plug is opened for water treatment.

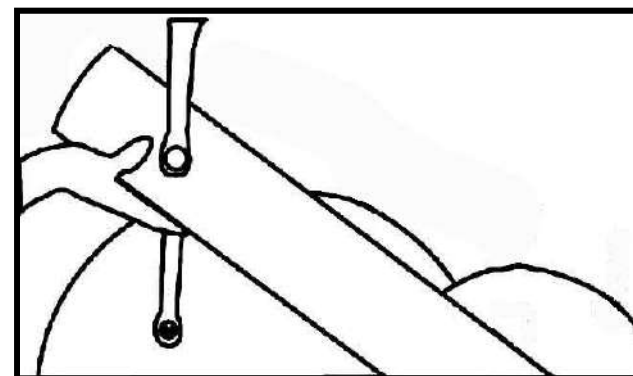


Resistance:

The level of resistance is determined by the level indicator located on the front of the tank. Level one indicates lightest resistance, level twenty represents heaviest resistance. Allow three to four seconds after adjusting resistance handle for the correct resistance level to be achieved.



Warning:



Use both hands when either raising or lowering the E820/E920 control arm.

Removing hands before the crank comes to a complete stop while training can cause injury. The crank is direct drive so as to allow both forward and reverse rotation during workouts.

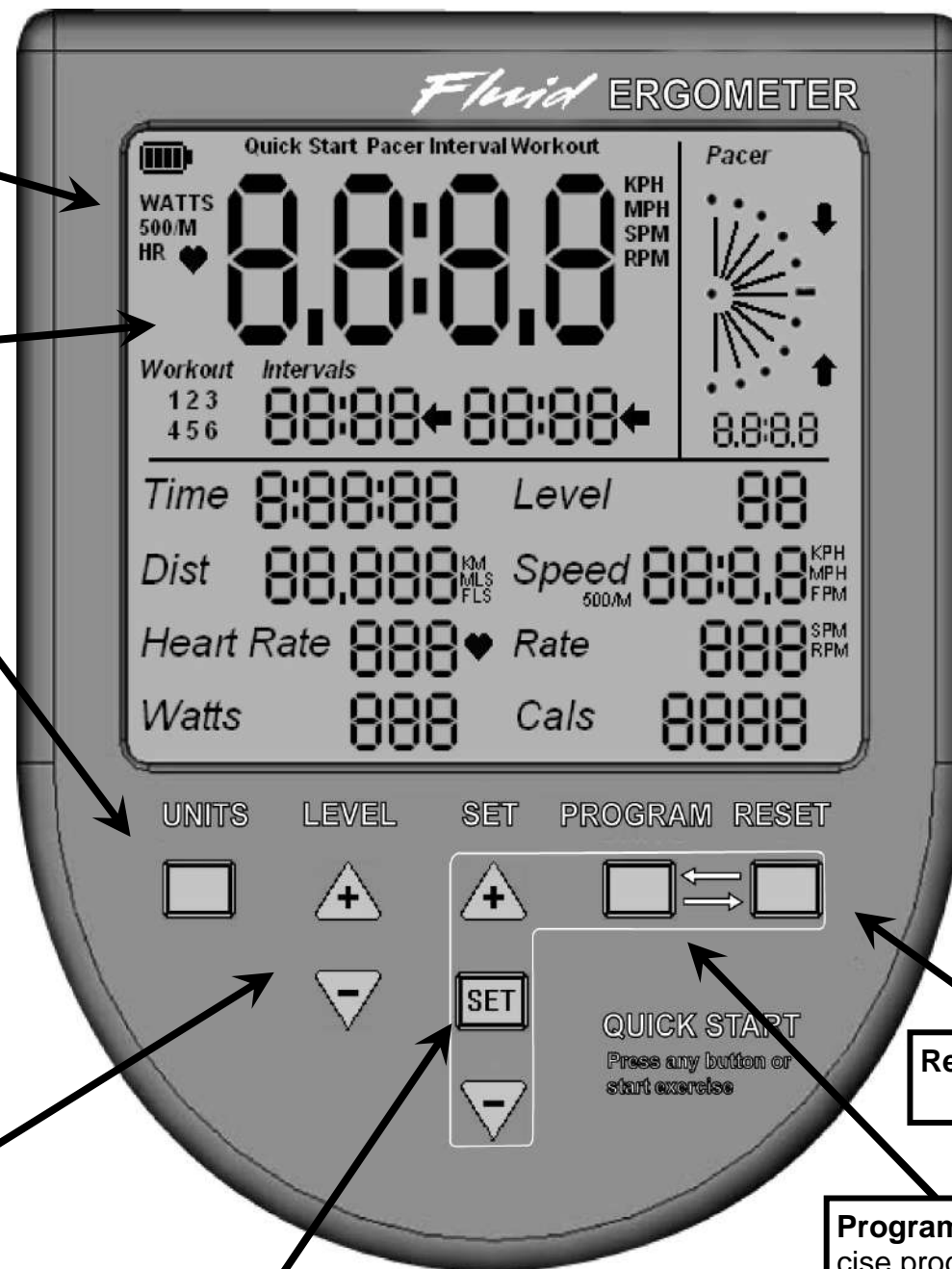
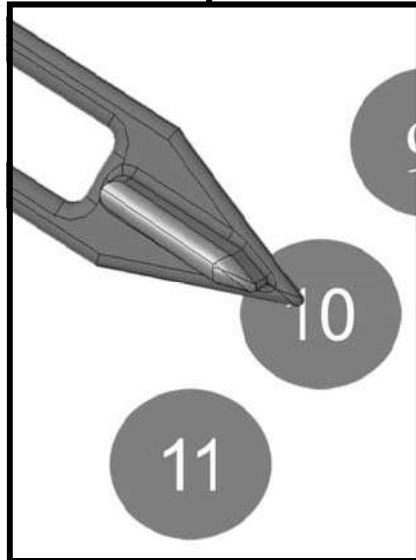
E820/E920 Ergometer.

Quick start provides instant workout information. Just start training to activate. You can choose to change UNITS displayed.

UNITS displays

WATTS, RPM, HR, MPH, KPH

Level Adjustable
from 1-20



Note: For complete operational instructions, please refer to the computer manual, which is included with your E820/E920.

Reset Clears data

Program Clears current exercise program

Set Changes Time, Distance parameters

Maintenance Chart.

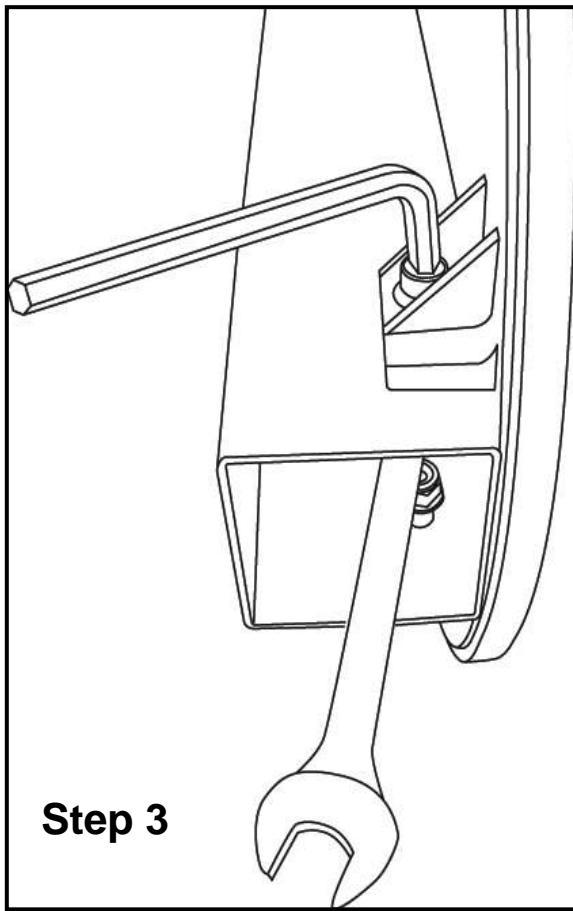
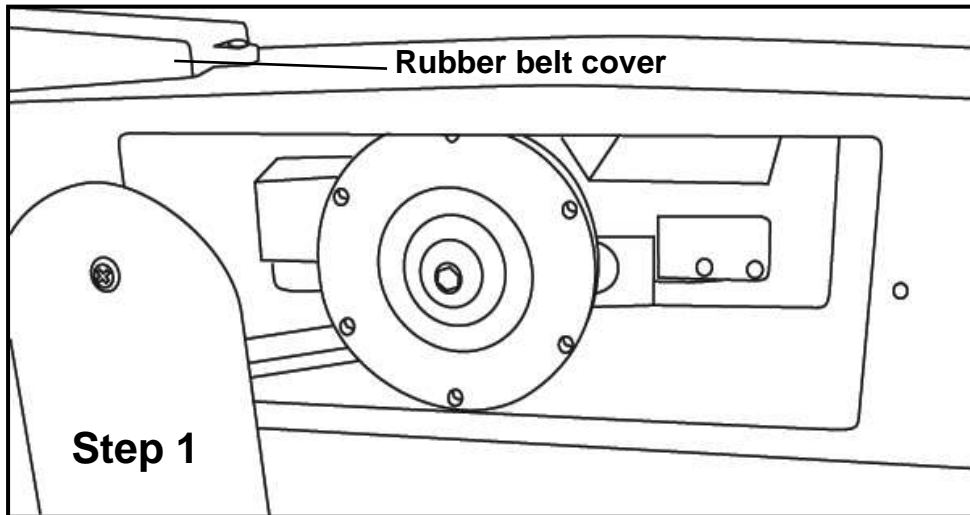
Item ¹³	Timeframe	Instructions	Notes
Seat and Frame.	Weekly.	Wipe down weekly with lint free cloth or more often with heavy club use.	
PK belt tension.	Monthly.	Check monthly for signs of slippage. Adjust/tighten as required.	
Tank and water treatment.	12 months to 2 years.	Follow instructions as specified in the "Water Treatment" section of this manual.	
Chain drive.	Check every 100 hours for correct tension.	Open the inspection plate and check tension using a screwdriver or other tool. Tighten as required using chain tensioning bolts located at the end of the control arm.	
E820/E920 pedals.	Tighten weekly using 15mm box wrench (supplied)	The pedals should be checked on a regular basis. A loose pedal can cause damage to the crank arm aluminum threads, requiring replacement.	

Troubleshooting Guide:

14

Fault	Probable Cause	Solution
Water changes color or becomes cloudy.	Rower is in direct sunlight or has not had water treatment.	Change rower location to reduce direct exposure to sunlight. Add water treatment and blue dye or change tank water as directed in the water treatment section of this manual.
Knocking noise from inside the control arm while training, especially when changing directions.	Chain requires tightening or adjustment.	Open inspection plate located on front of control arm and check tension using a screwdriver or other tool. Use the chain tensioning bolts located at the rear of the control arm to tighten or adjust as needed. The chain should have approx 3mm of slack when properly adjusted. See P.10 for details.
Pedals slip during hard training.	PK tank belt requires tightening.	Remove large inspection plate next to the tank, insert a long tool to push the rear end cap out from the inside, exposing the tank belt tensioning bolt. Loosen tank bolts slightly. Remove upper rubber belt cover to expose the PK belt. Tighten the tank tensioning bolt until the belt is too tight to be twisted from side to side more than 45 degrees by hand. See P.15 for details
Pedal is loose (either left or right) and cannot be retightened.	Aluminum crank arm threads are stripped.	Contact service center for replacement. Then check weekly as recommended.
Computer screen illuminates, but does not register when rowing.	Loose or failed connection/ Sensor gap too wide (see erratic computer display).	Check that the computer lead is connected properly. If connected properly check sensor gap. Contact your local service center if this fails to address the problem.
The E820/E920 computer does not illuminate after battery installation.	Batteries installed incorrectly or need replacing.	Reinstall batteries in correct position and try again. If the LCD screen fails to illuminate, try rotating the batteries slightly in the computer. If this fails, contact your local service center.
The E820/E920 computer display is erratic/slow while displaying RPM and WATTS	Gap between sensor and magnetic ring is too wide.	Remove inspection plate and check sensor gap and that magnetic ring is not wobbly.

Tank Belt Adjustment



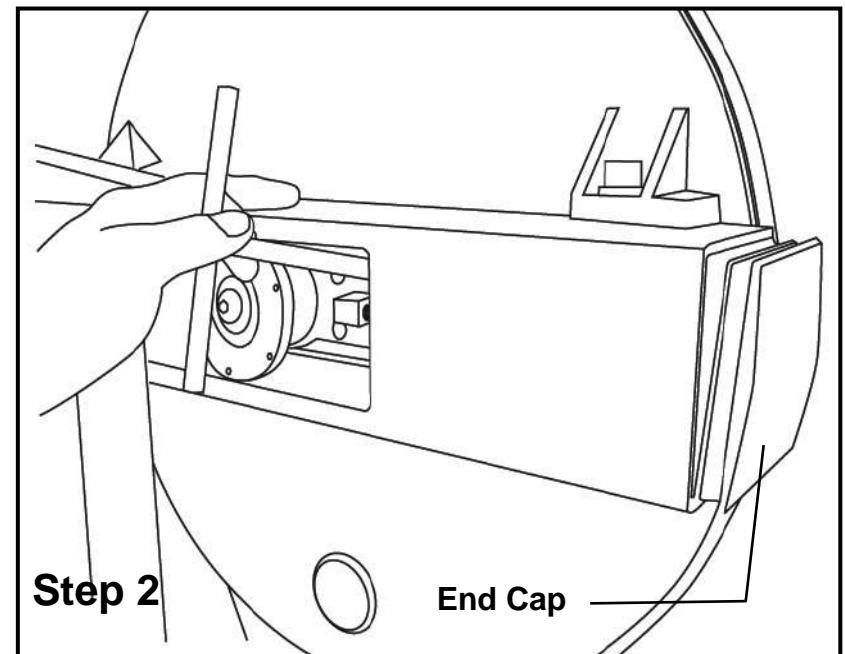
Step 1: Remove large metal inspection plate as shown above right.

Step 2: Using a long tool, push out the rear end cap as pictured above right. This will give you access to the tank tensioning bolt (shown bottom right).

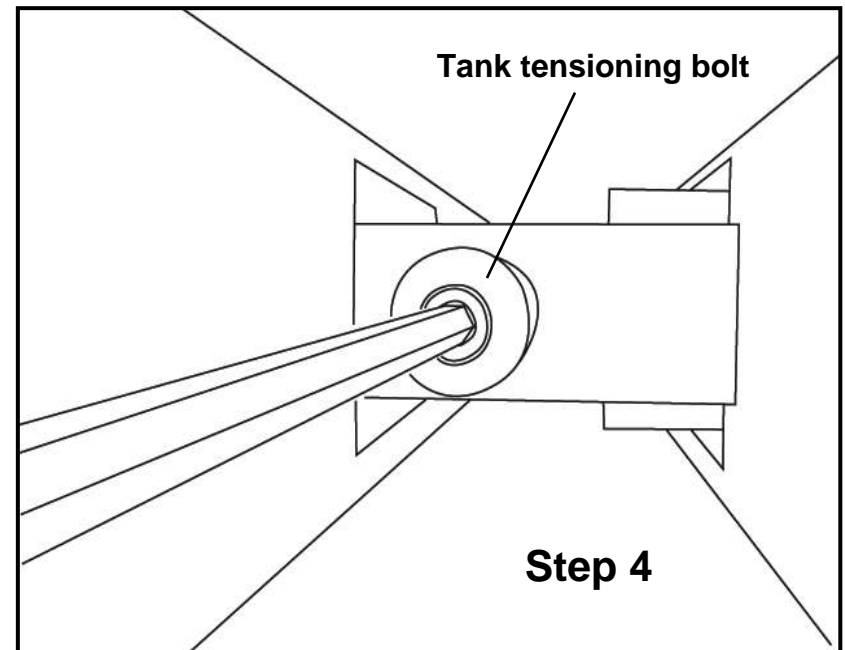
Step 3: Loosen both the rear and front tank bolts slightly as shown left. Remove front rubber belt cover.

Step 4: Using a 6mm Allen key, tighten the belt using the tank tensioning bolt until the belt no longer slips during hard rowing.

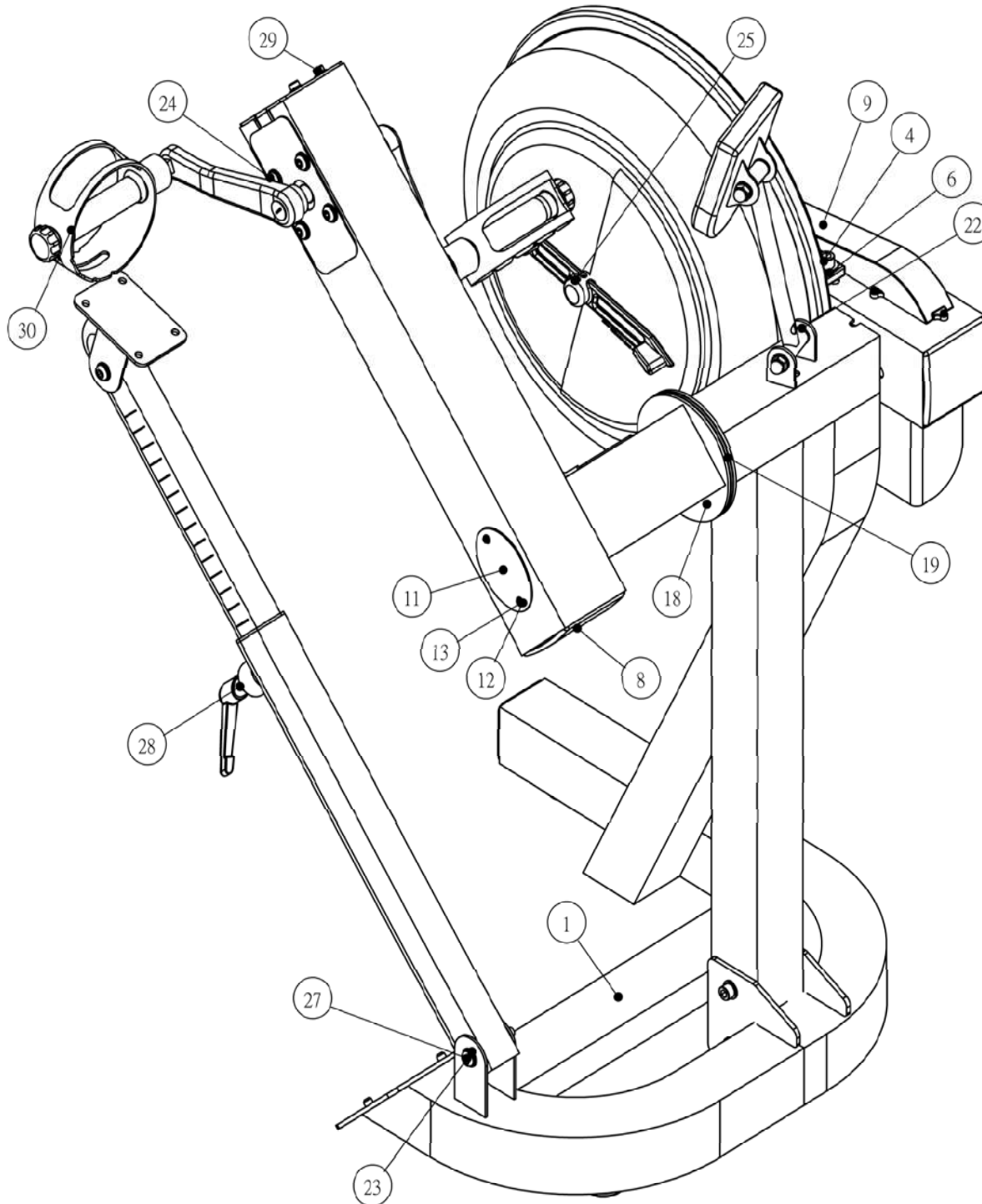
Note: Do not over tighten tank bolts.



Tip: Twist the belt by hand to gauge tightness. Correct tension should be obtained when no longer able to twist more than 60 degrees.



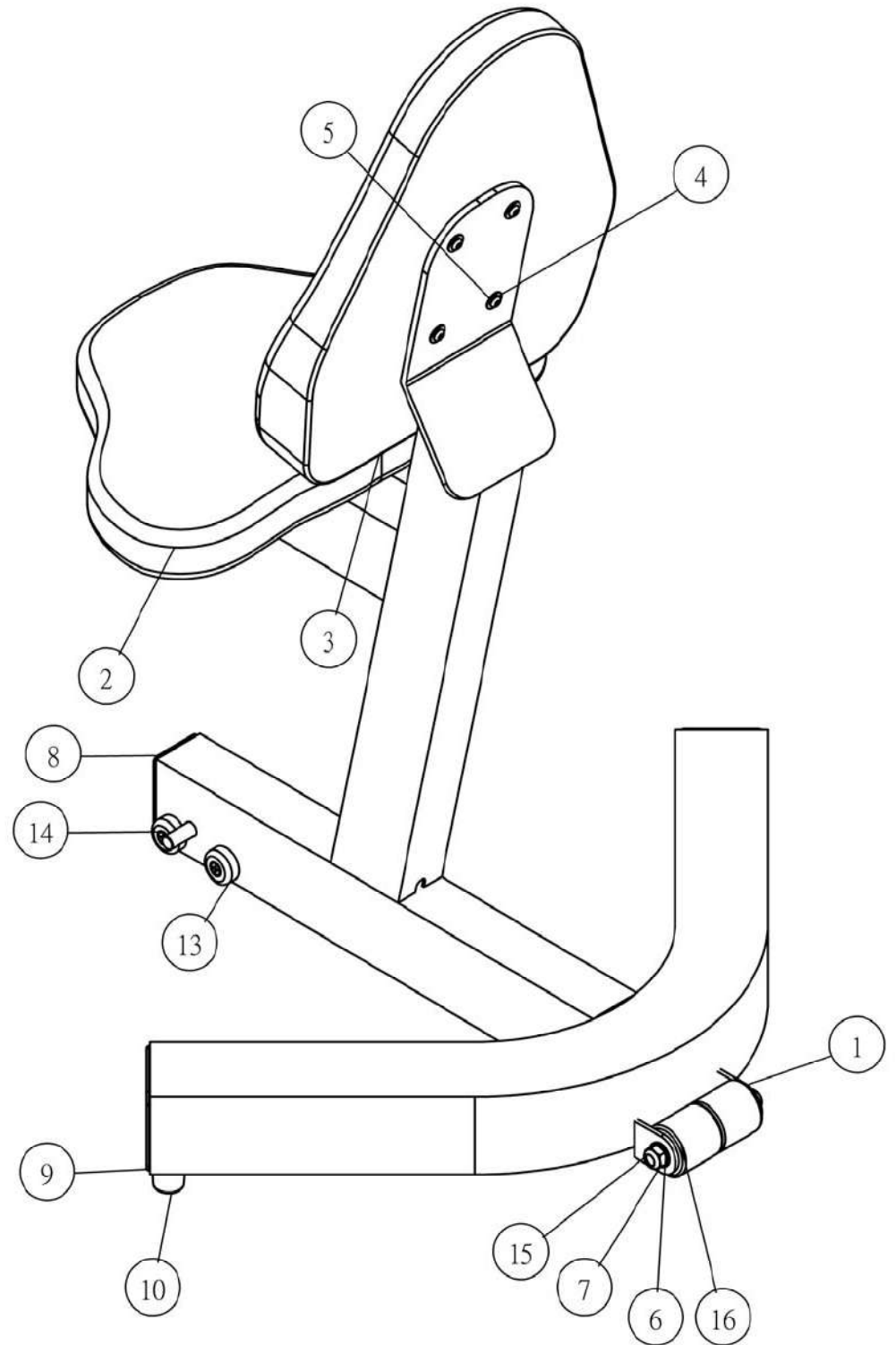
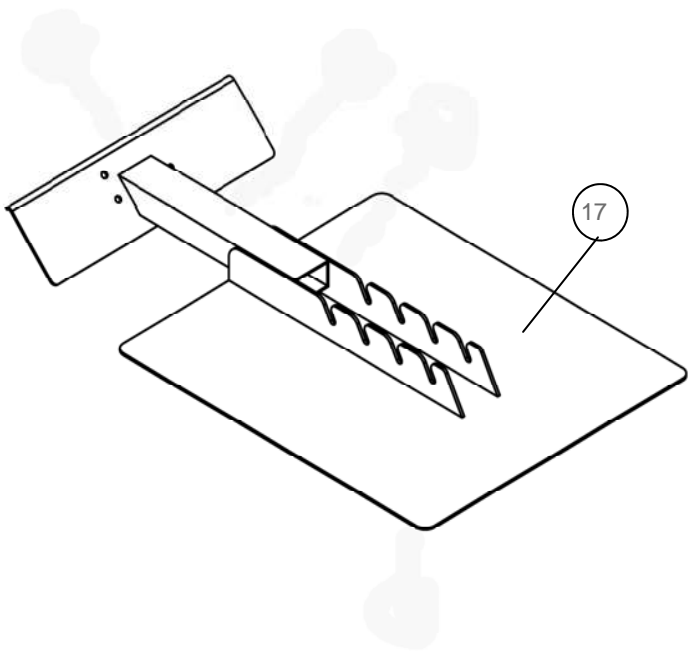
Exploded Diagrams/Parts Lists

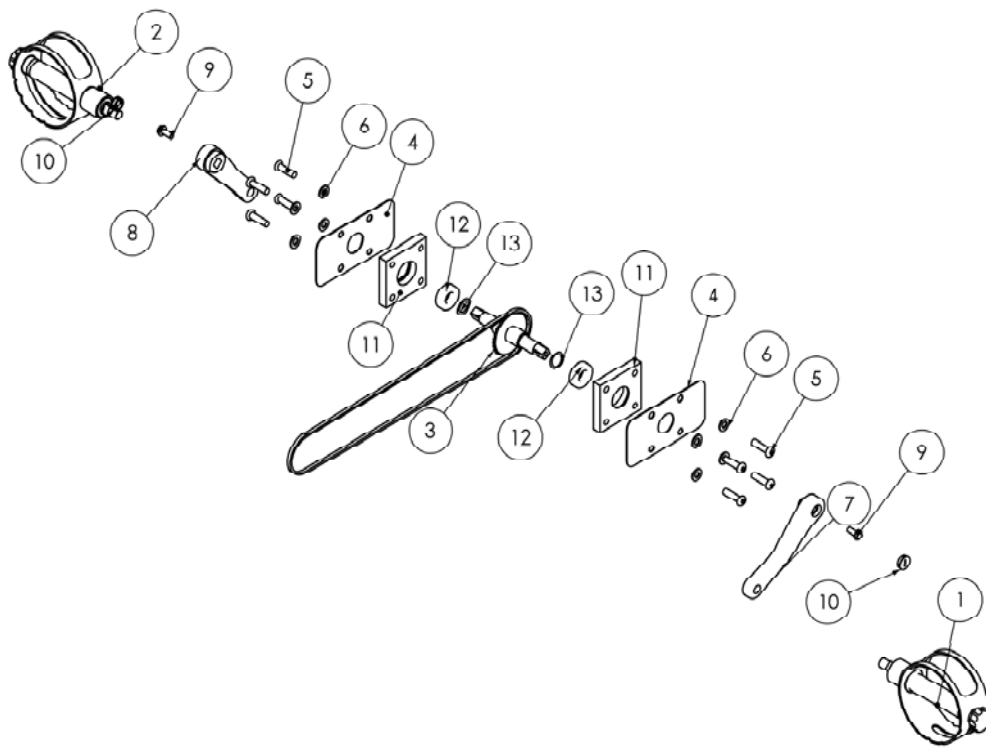


KEY	P/N	QTY	Description
1	33100	1	Main Frame Assembly
2	20103	1	Mainshaft Assembly
3	20008	1	End Cap 75x75
4	10040	1	Bolt M12x140
5	10063	2	Bolt M12x30
6	10043	6	Washer M12
7	10042	3	Nut M12 Nylon
8	10066	3	End Cap 100mm
9	10067	2	Rubber Cover for Large PK Pulley
10	10068	1	Large Steel Side Cover 276mm
11	10072	2	Small Steel Side Cover 100mm
12	10170	6	Washer M4
13	10070	18	Screw M4x10
14	10189	1	Tank Tension Adjustment Bushing
15	10190	2	Washer M8x26
16	10191	1	Bolt M8x120
17	60108	1	Bungee Pulley Spacer
18	23200	1	Control Arm Assembly
19	23921	1	Control Arm Bushing
20	23922	1	Control Arm Spacer
21	23923	3	Spacer
22	23900	1	Computer Assembly
23	10082	3	Washer M10
24	20600	1	Crank Arm Assembly
25	20300	1	Tank Assembly
26	10041	2	Nut M10 Nylock
27	10096	1	Bolt M10x70 for Aluminum Rail
28	33934	1	Telescoping Tube External
29	20850	1	Tension Adjustment
30	20691	1	Right Handle Complete

Seat Assembly

KEY	P/N	QTY	Description
1	17 23501	1	Seat Frame
2	20115	1	Seat LS-622
3	20117	1	Seat Back LS-622
4	10080	8	Bolt M6x20 for Seat
5	10081	8	Washer M6
6	10082	2	Washer M10
7	10041	1	Nut M10 Nylock
8	10069	2	End Cap 75x50mm
9	20008	2	End Cap 75x75
10	10101	2	Rubber Bumper
11	20186	1	Seat Frame Bump Stop
12	20187	1	Bolt M6x25
13	20123	4	Plastic Washer 30x6x12
14	10120	4	Screw M6x15
15	20009	1	Bolt M10x100
16	10103	2	Transport Wheel
17	23700	1	Foot Plate



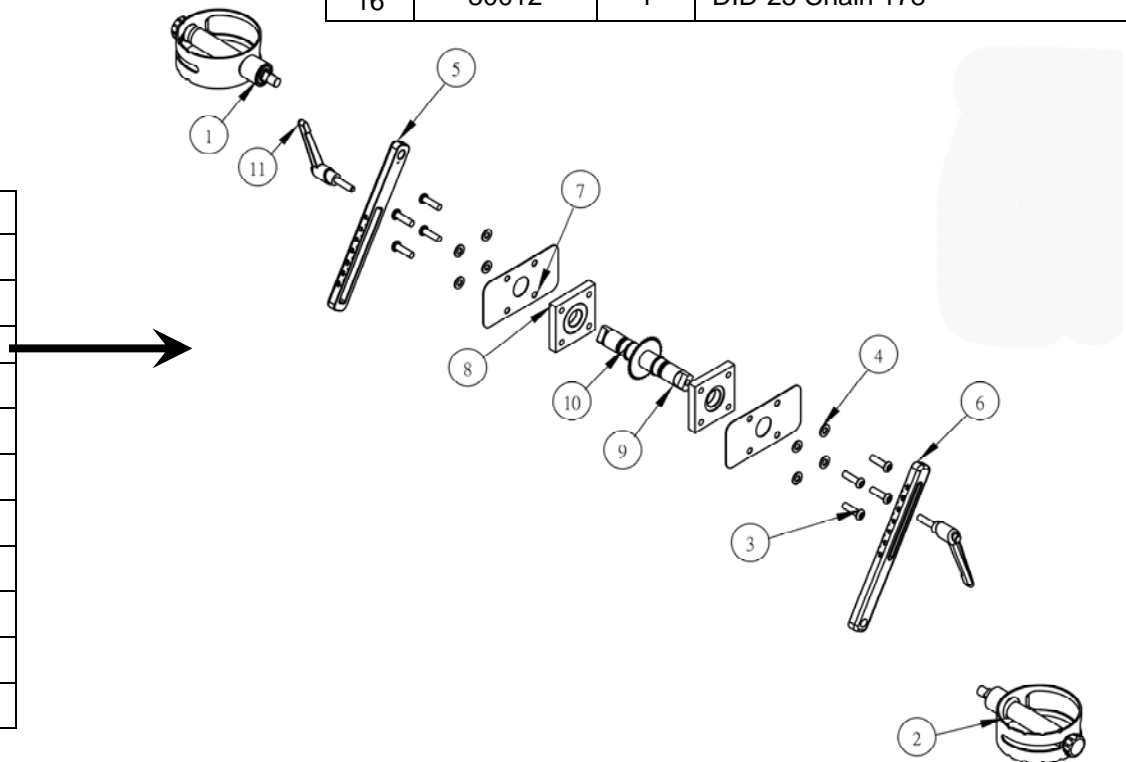


E820 Crank Arm Assembly

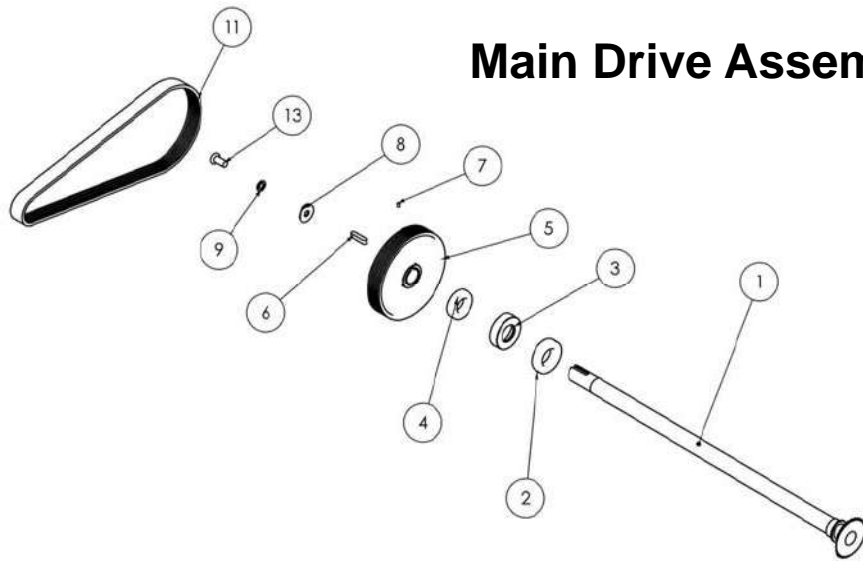
KEY	P/N	QTY	Description
1	20690	1	Left Handle Complete
2	20691	1	Right Handle Complete
3	20694	1	E820 Axle and Cog
4	20052	2	Side Bearing Cover
5	20020	8	Bolt M10x35
6	10082	8	Washer M10
7	20134	1	Crank-Left
8	20135	1	Crank-Right
9	20132	2	French Screw M8x20xP1.0
10	20133	2	Crank End Cap
11	20190	2	Aluminum Block Bearing Housing
12	20193	2	NSK 6004ZZ Aluminum Block Housing Bearing
13	20196	2	Wave Washer 20mm
16	30012	1	DID-25 Chain 178

E920 Crank Arm Assembly

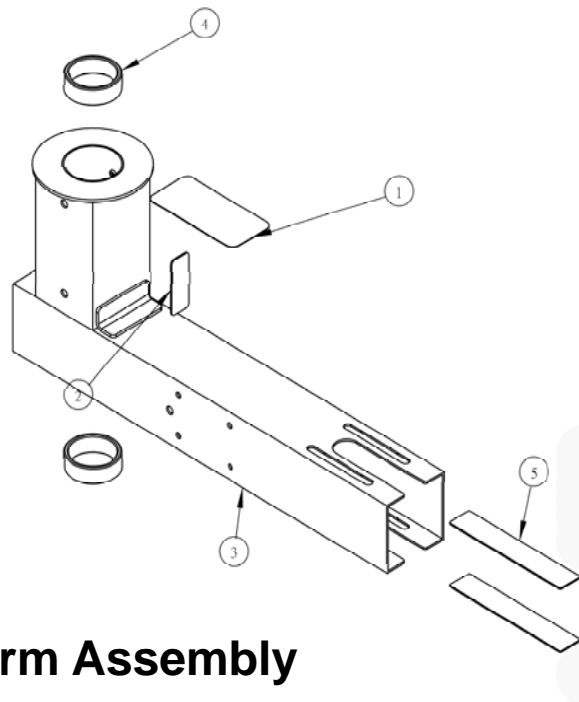
KEY	P/N	QTY	Description
1	20690	1	Left Handle Complete
2	20691	1	Right Handle Complete
3	20020	8	Bolt M10x35
4	10082	8	Washer M10
5	23134	1	Crank-Left
6	23135	1	Crank-Right
7	20052	2	Side Bearing Cover
8	23901	2	Aluminum Block Bearing Housing
9	23694	1	E920 Axle and Cog
10	33014	2	C Clip STW-30
11	23045	2	L Pin M10x40



Main Drive Assembly

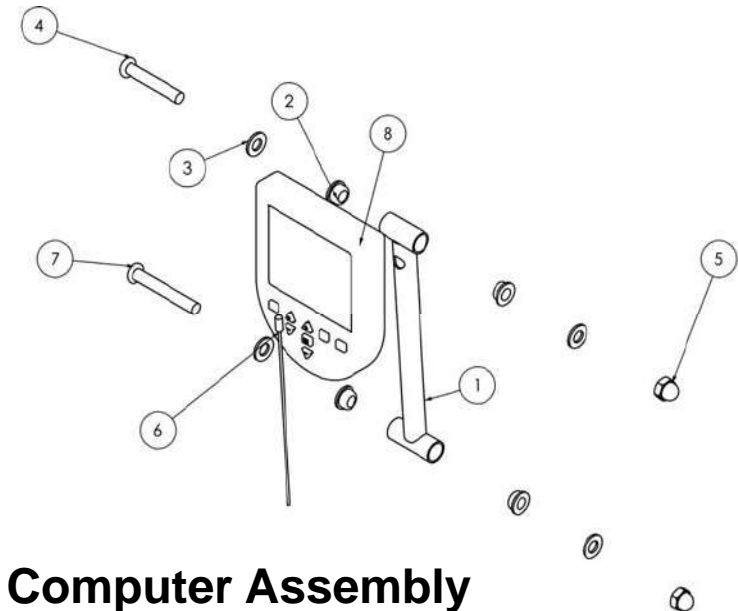


Item	P/N	QTY	Description
1	20157	1	Shaft+Sprocket
2	10146	1	Ball Bearing NSK6006ZZ
3	10011	1	Bearing Housing
4	10012	1	NSK 6005ZZ Bearing
5	10015	1	150mm Large PK Transmission Pulley
6	10017	1	Key way 7x7x32
7	10052	1	Grub Screw M4x6
8	10138	1	Shaft washer
9	10139	1	Spring Washer Flywheel shaft
10	10109	1	Belt 7PK 926mm HUTCHINSON
11	10083	1	Bolt M10x20



Control Arm Assembly

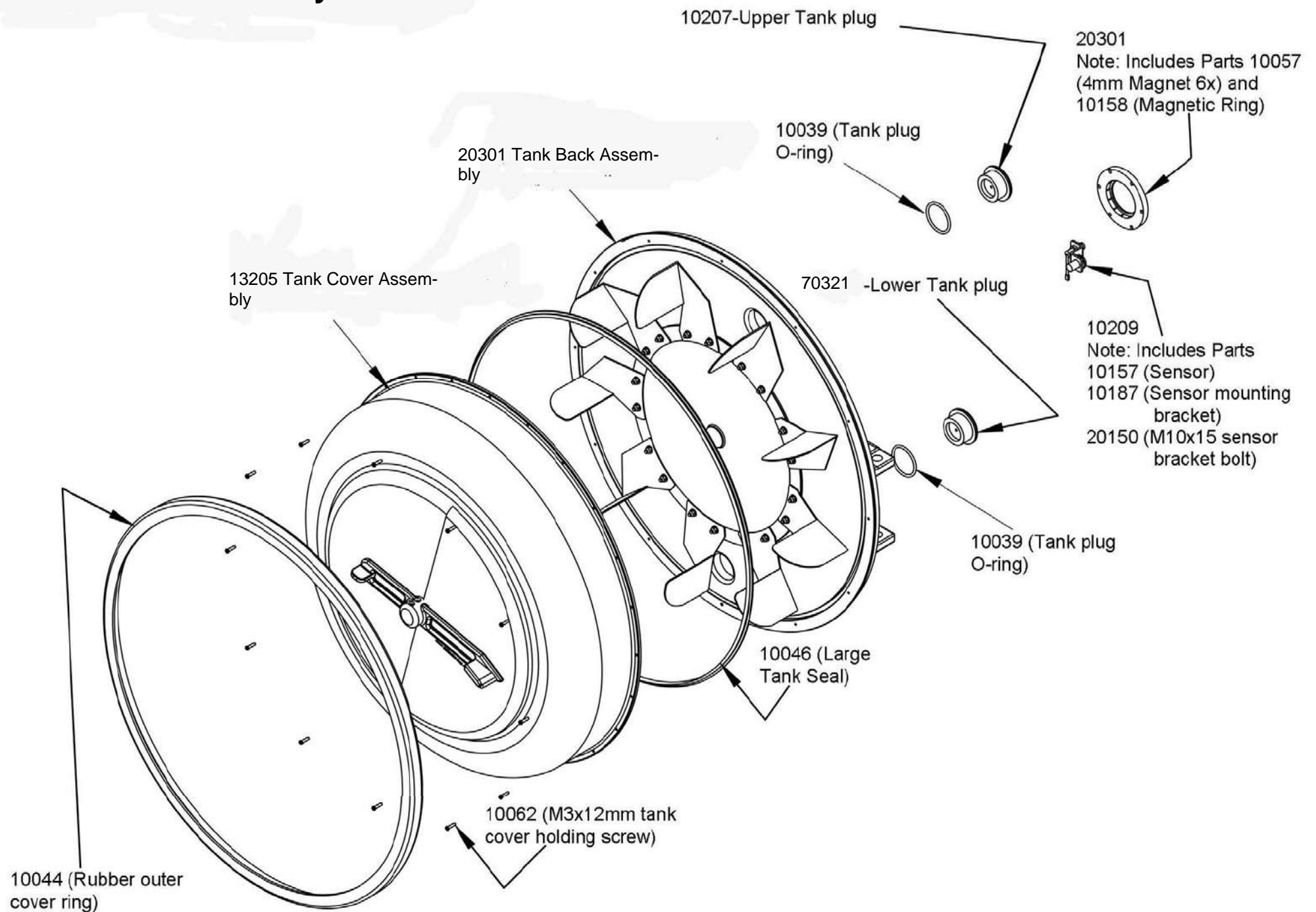
KEY	P/N	QTY	Description
1	20043	1	Decal - UBE
2	20036	1	Small Warning Decal
3	23291	1	Control Arm
4	23920	2	Control Arm Bushing
5	20170	2	Chain Protection



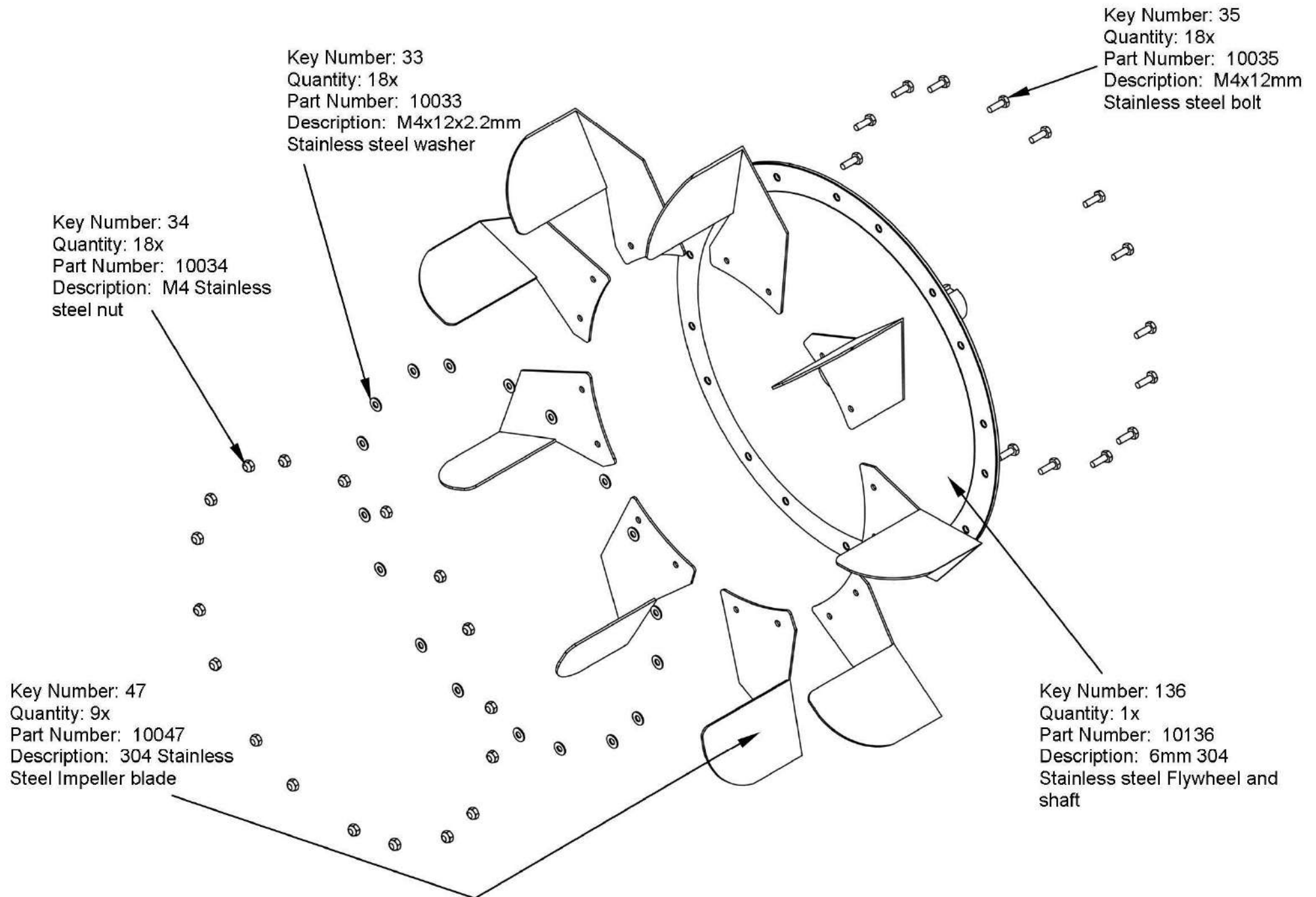
Computer Assembly

Item	P/N	QTY	Description
4	13112	1	Computer Mounting Arm
5	10114	4	Bushing 20x16x13x10
1	10082	4	Washer M10
6	10116	1	Bolt M10x60
3	10097	2	Nut M10
7	10117	1	Sensor Wiring
2	10096	1	Bolt M10x70 for Aluminum Rail
8	20903	1	Computer

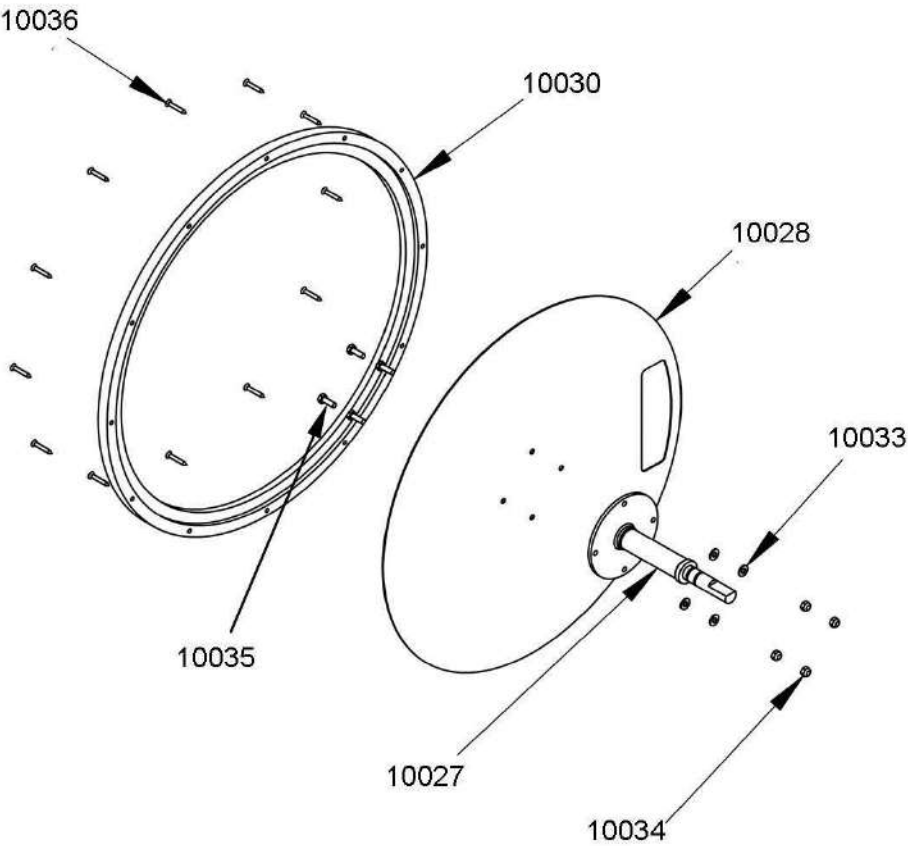
FDF-9B Tank Assembly



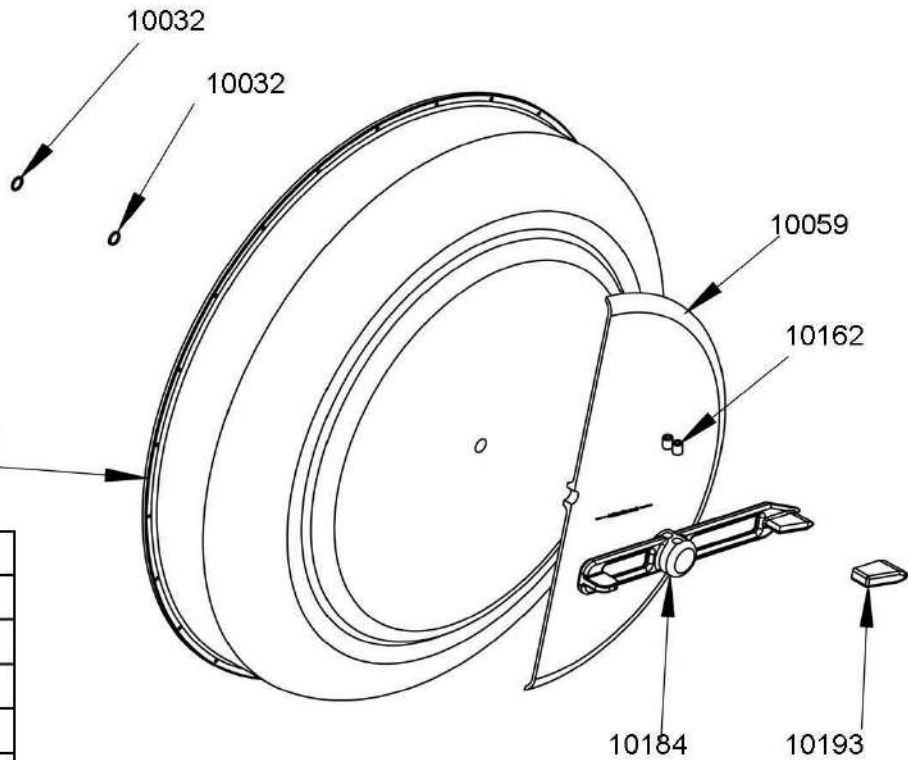
Flywheel Assembly



13205 Tank Cover Assembly



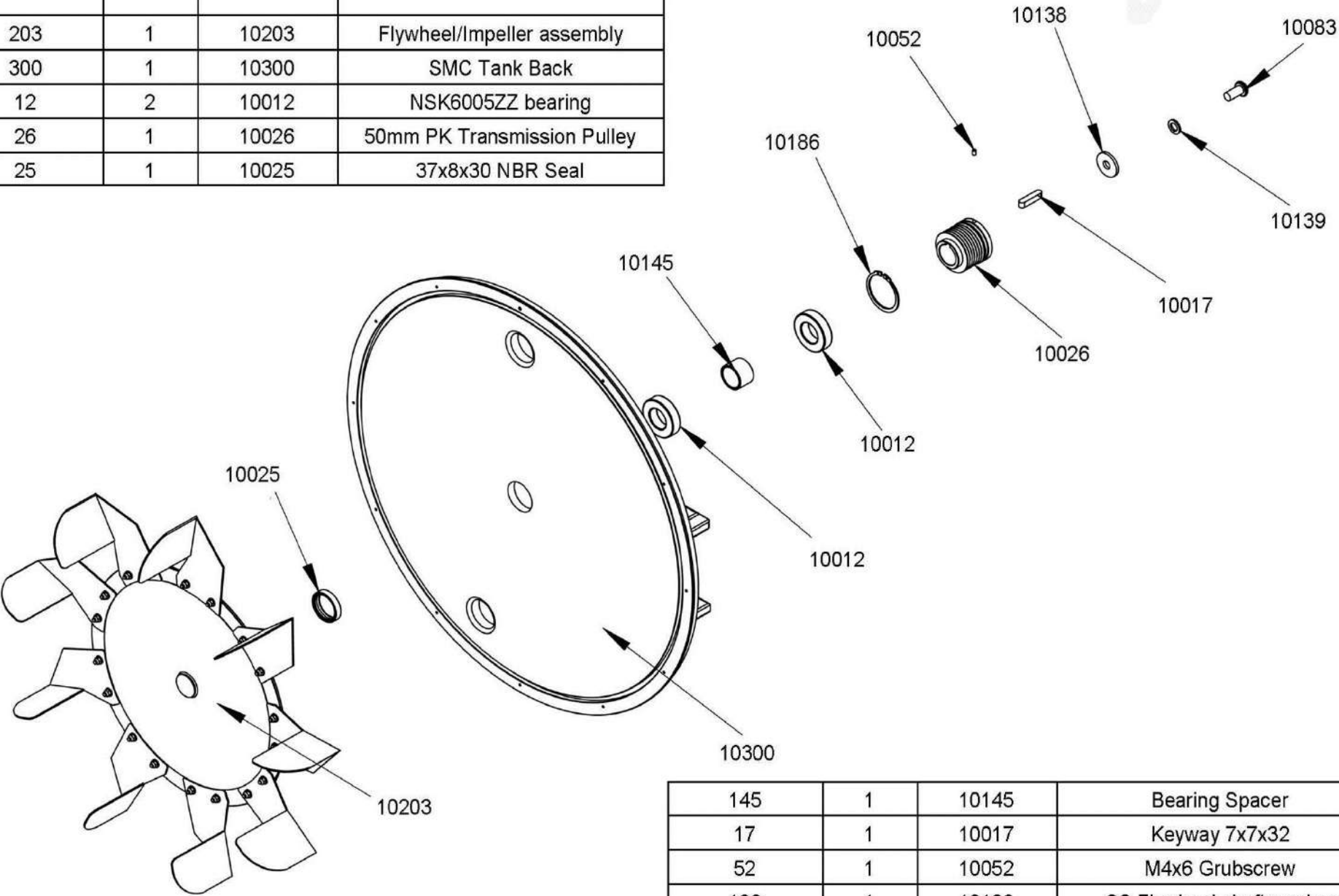
Key Number:	QTY:	Part Number	Description
27	1	10027	Stainless Steel adjuster shaft
28	1	10028	Stainless 0.8mm backing plate
33	4	10033	Stainless Washer 10x4.2x1
34	4	10034	M4 Stainless Nylock nut
35	4	10035	M4x12 Stainless bolt
32	2	10032	Adjuster O-ring 12x9x1.5



45	1	13045	Polycarbonate Clear tank cover
30	1	10030	Blue PP Tank Ring
36	12	10036	M3x20mm PP ring holding screw
59	1	10059	Resistance level tank decal
162	2	10162	M8x10 grub screw
184	1	10184	Tank level resistance handle
193	1	10193	PU Yellow resistance handle cover

20301 Tank Back Assembly

Key Number:	QTY:	Part Number	Description
203	1	10203	Flywheel/Impeller assembly
300	1	10300	SMC Tank Back
12	2	10012	NSK6005ZZ bearing
26	1	10026	50mm PK Transmission Pulley
25	1	10025	37x8x30 NBR Seal



145	1	10145	Bearing Spacer
17	1	10017	Keyway 7x7x32
52	1	10052	M4x6 Grubscrew
138	1	10138	SS Flywheel shaft washer
139	1	10139	Flywheel Shaft Spring Washer
83	1	10083	M10x20mm bolt
186	1	10186	RTW-48 C-clip

FLUID Product (model E820/E920)

INTERNATIONAL WARRANTY – COMMERCIAL USE

First Degree Fitness Limited warrants that the **E820/E920**, purchased from an authorized agent, is free from defects in materials and workmanship. First Degree Fitness or its agents will, at their discretion, repair or replace parts that become defective within the warranty period.

Metal Frame – 10 Year Limited Warranty

First Degree Fitness will repair or replace the metal Main Frame of the **E820/E920** should it fail due to any defect in materials or workmanship within 10 years of the original purchase. Warranty does not apply to frame coating.

Polycarbonate Tank & Seals – 3 Year Limited Warranty

First Degree Fitness will repair or replace the polycarbonate tank or seals should they fail due to any defect in materials or workmanship within 3 years of the original purchase.

Mechanical Components (of a non-wearing nature) – 2 Year Limited Warranty

First Degree Fitness will repair or replace any mechanical component should it fail due to any defect in materials or workmanship within 2 years of the original purchase.

All Other Components (of a wearing nature) – 1 Year Limited Warranty

First Degree Fitness will repair or replace any component should it fail due to any defect in materials or workmanship within 1 year of the original purchase.

Specific Inclusions

- Hand grips
- Seat
- All rubber components
- Computer & speed sensor (excluding replaceable batteries)
- All drive belts, bearings & chains
- Crank housing, Adjustable Crank Arms (**E920 only**) & Pedal assembly

General Exclusions

- Damage to the finish of any part of the machine
- Damage due to neglect, abuse or incorrect use of the machine
- Any charges for freight or customs clearance associated with the return or dispatch of parts
- Any damage to or loss of goods during transport of any kind
- Any labour cost associated with a warranty claim

General Conditions

- The serial number of the machine must be correctly registered with First Degree Fitness Limited or one of its appointed distributors
- First Degree Fitness Limited reserve the right to examine any part where replacement is claimed under warranty
- Warranty period applies only to the original purchaser from the date of purchase and is not transferable
- The product must be returned to your place of purchase in original packaging with transportation, insurance and associated charges paid for by you and risk of loss or damage assumed by you.

First Degree Fitness makes no other warranties except as stated here and expressly disclaims all warranties not stated in this warranty. Neither First Degree Fitness nor its associates shall be responsible for incidental or consequential damages