The Tassie Energy HPV Challenge 2014

1 Check - Dimensions

a. Max length 2700 mm
b. Max width 1100 mm
c. Max height 1200 mm
d. Wheel track min 600 mm
e. Wheel base Min 1000 mm

f. Head RRPS
   i. Min 300 mm wide at 150 mm from top
   ii. Min 50 mm above canopy
   iii. 20 mm foam above rider if closed vehicle
   iv. Bracing angle includes vertical line


2 Check - General

a. Single seat recumbent, HP drive to rear wheel(s)
b. No original bike, Go-Kart or motorbike frames
c. Min of three full time load bearings wheels all with adj. brakes
d. Two independent brake systems, mounted securely
e. Brake controls from moving parts and road
f. No brake friction applied to tyres & no rope or cable steering
g. Steering lock limitation over central travel, linkage damage, tyre or wheel contact with vehicle parts (jamming avoidance)
h. Speedo clearly visible to rider and operational
   i. Warning Device
      ii. Electric, in front of feet
      iii. Momentary switch, sound going loud
      iv. Air contact to get sound out of vehicle
   j. Batteries mounted securely - No liquid acid
k. Floor pan able to stop rider’s feet, legs, hands hitting road
l. Mirrors
   i. One each side
   ii. Flat or mildly convex with similar reflections
m. Min area 18 cm² (nom 5 cm diam) or Zefal Spy
n. Vehicle has no dangerous protrusions or features
o. Frame joints/mountings competently welded or attached
p. Signage not offensive nor of illegal substances, alcohol, tobacco
q. Axle end recessed, flush, covered or shielded
r. Four strap seat belt harness with Certificate Label showing
s. Frontal design prevents easy penetration of another vehicle

3 Construction

a. Vehicle construction robust, strong and durable
b. Frame joints/mountings competently welded or attached
c. Composite materials fully cured, no unbounded fibres
d. Cockpit overhead protection
   i. capable of deflecting vehicle
   ii. Min of two bars - no negative bends
   iii. Suitable effective width and no rear hinging
   iv. Hard shell vehicles minimum two layers
   v. Open cell foam as needed on bars or panels
   vi. Moveable bars, body panels suitable locking system
   vii. No hooks - No velcro as sole fastening system
e. i. Body/COP catches operable from inside and outside
   ii. As per appendix to mark non obvious catches
   iii. Team demonstrates body sections shutting with click
f. Seat Belts
   i. Not modified, mounted as intended
   ii. Belt in good condition - not frayed, cut or restritched
   iii. Each point of harness mounted separately to chassis
   iv. Bolts/fittings as supplied or min Grafe 5 X 8 mm
   v. 2-3 threads showing above nuts [Nylok or spring washer]
   vi. Bolts mounted through the frame tags or sleeved tube
   vii. Seat or sub frame carrying belt mounts is attached to chassis

4 Rider Rollover Protection Structures (RRPS)

a. General
   i. Integral to chassis/frame/shell
   ii. Properly attached, suitable material, robust for purpose
   iii. Hoop configuration, right angles to centre line
   iv. Comers minium 50 mm radius

b. Head RRPS
   i. Long braced to chassis from highest point
   ii. Removable bracing attached appropriately
   iii. Hard shell without external roll bar strong enough

c. Front RRPS
   i. Covers rider’s knees
   ii. Will protect rider’s feet, knees, legs if inverted or on side
   iii. Stabilised to prevent longitudinal collapse
   iv. If bar braced: longitudinal at 10° min. inc. vert. line

5 Dynamic Brake and Steering Test

a. Rider able to move steering from lock to lock freely
b. Steering controls and wheels do not expose rider to injury

b. Rider able to exit vehicle unassisted
c. Single seat recumbent, HP drive to rear wheel(s)
d. Two independent brake systems, mounted securely

3. Check - General

a. Single seat recumbent, HP drive to rear wheel(s)

4. Rider Rollover Protection Structures (RRPS)

a. General

5 Dynamic Brake and Steering Test

a. Rider able to move steering from lock to lock freely
b. Steering controls and wheels do not expose rider to injury

Signed: 

Date: / / 2014