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200 Chassis/Kart, Tires, Fuel & Oil:

201 Chassis/Kart:

*** Note: All measurements are in inches unless otherwise stated.**

*** Note: CIK homologated components shall remain OEM unless specified in the specific component rule.**

*** All karts must have a current Pre-Tech Chassis Band attached before Qualifying.**

201.1 Adjustments:

The only adjustment a driver can make while on the track is the carburetor, brake bias or radiator louvers/shroud. Removing tape from radiator while on track is allowed. Adjustments must be made manually; mechanical adjustments are illegal.

201.2 Frame:

Main frame shall be round tubing with a minimum diameter of 1.0" and maximum diameter of 1.4". Minimum wall thickness for 1" diameter tubing is .078" and, for 1.125" or greater diameter tubing minimum wall thickness is .060". Frame tubing shall be minimum cold rolled or electric welded tubing or tubing of equivalent strength.

201.3 Floor Pan:

Floor pan is required, must not extend rear of the front seat mount/crossbar, it must be inside the frame rails and securely bolted in place. Must be made of metal, aluminum or composite, no plastic materials are allowed.

201.4 Steering:

Direct mechanical type steering is required; vertical shaft or rack and pinion steering is illegal. Steering shafts shall be attached at bottom with a minimum 5/16" fastener. Minimum diameter for solid steering shaft is 0.625" and for a hollow shaft it is 0.700". Minimum diameter for steering wheel hub bolts is ¼" grade 5. All tie rod component bolts shall be a minimum of 5/16" grade 5 bolts. Tie rods shall swivel at both ends and be made of steel or aluminum. Steering wheel must be round in shape with a minimum of three spokes and 10" diameter. The top third of the wheel may be flat or open but they must be designed that way and cannot be altered. Shaft adapters that change the angle of the steering wheel are legal. It is highly recommended where possible that steering component bolts are drilled with safety wire/cotter pin inserted, or machined for e-clips with e-clips installed. At minimum lock nuts will be required.

201.5 Axle:

The axle must be a one-piece axle; it can be solid or tubular with a minimum diameter of 25mm, a maximum diameter of 50mm and a minimum wall thickness of 0.075". Carbon fiber or carbon fiber composite axles are not allowed. Stiffeners are allowed if they are secured with bolts that are drilled for cotter pin or safety wire or machined for spring clips or e-clips; with the above mentioned properly installed (cotter pin, safety wire, or e-clip). Snap ring grooves, or any machining other than for keyway, are not allowed anywhere in the area between the left and right wheel hubs. Axle shall not extend past the outside edge of the wheel. Maximum width of rear track at widest point is 55 1/8".

201.6 Brakes:

Kart shall have rear brakes that shall prevent the wheels from turning when adequate pressure is applied to the brake pedal. Brake pedal and master cylinder must be attached to the main frame with bolts that are drilled with safety wire/cotter pin inserted, or machined for e-clips with e-clips properly installed.

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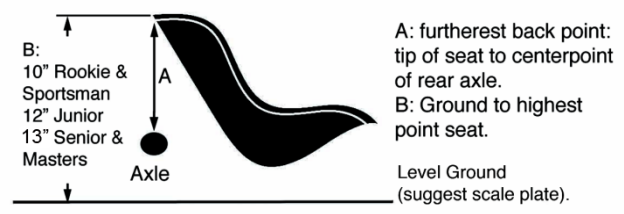
201.6 Brakes:

It is highly recommended where possible that the brake caliper be attached to the main frame with bolts that are drilled with safety wire/cotter pin inserted, or machined for e-clips with e-clips properly installed. Brake rotor must be attached to the brake hub with a minimum of three bolts that are drilled with safety wire/cotter pin inserted, or machined for e-clips with e-clips properly installed, or steel lock nuts on a minimum of three bolts; nylon lock nuts are not allowed on the brake rotor. The linkage from brake pedal to master cylinder or brake bias must be either 6mm or larger steel rod with clevis or heim joint fittings with jam nuts on each end or kart manufactured cable that is a minimum diameter of 2.5mm. NOTE: If secondary cable is used nylon locknuts may be used in place of drilling or machining bolts for actuating rod and secondary cable. Scrub or band-type brakes are not allowed. Brake components must be steel or aluminum; ceramic, carbon fiber or such materials are not allowed. Hydraulic connections must be clean and tight with no leaks and routed to prevent damage while operating kart.
Hand brakes are not allowed. An exception may be requested for a driver with a disability and must be approved by THMP.

201.7 Seat:

Seat shall be a molded, one-piece sprint bucket design and be the correct size for the driver so they cannot move or slide from side to side in a manner that could be unsafe or to gain an advantage from aerodynamics. Lay down type seats are illegal. Seat cannot be cut in any way to add or remove material and shall be in safe condition,
e.g., the bottom is not weak or broken. Bottom of seat shall be between the frame rails and can be mounted above or below the frame rails.
Seat shall be mounted to the kart in a minimum of four spots with front of seat being higher than the bottom. Adjustable seats that can be moved while on track are illegal.
*Lay down type seats are not allowed

See chart and following Figure for dimensions. Seat belts or other restraints are illegal.
* Repairing the bottom of the seat from rubbing on the track is allowed.
"A" – Any part of the seat cannot be behind the axle.
"B" – These are minimum measurements.



201.8 Suspension:

Suspension components are not allowed, for example, springs, shocks or other components.

201.9 Wheel Hubs:

Wheel hubs must be made from metallic materials with wheel studs having a minimum diameter of 0.3125".

201.10 Spindles:

Spindle shall not extend past the outside edge of the wheel. It is highly recommended where possible that spindle bolts are drilled with safety wire/cotter pin inserted, or machined for e-clips with e-clips installed. At minimum lock nuts will be required.

201.11 Wheel Bearings:

Split race bearings are not allowed. Bearings must be ground ball or roller bearings. Bearings must be adjusted to remove excessive play.

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201.12 Wheels:
Must be 5” diameter, as manufactured (no drilling or removing material) and proven to withstand the force and strain of the racing condition. Lateral supported wheels or g-rings will not be allowed. Maximum width of rear track at widest point is 55 1/8” unless specified under class structure or supplemental rules.

201.12.1 Wheel Weights:
Wheel weights are allowed with each piece not to exceed ¼ ounce. Placing duct tape over weights to secure is suggested for extra safety.

201.13 Throttle Pedal Spring:
Positive acting throttle pedal return spring is required on all karts.

201.14 Fuel System:
One fuel tank maximum per kart. Fuel tank must be puncture resistant and leak proof when the fill cap is on. Maximum capacity is nine liters. Tank must be within the frame and under the steering shaft, mounted to either the steering uprights or floor pan. Pressurized fuel system or any fuel pumps other than a pulse pump in the carburetor is illegal.

201.14.1 Fuel Line:
All fuel line connections shall be securely attached. It is highly recommended that a cable tie, safety wire or other approved fastener is used. Fuel line shall not be in excessive length or size.

201.15 Chain:
Chain sizes allowed are #219 or #35. Chain oilers are not allowed.

201.15.1 Chain Guard:
All karts are required to have a chain guard attached before entering the racetrack. It is recommended that IAME classes use a full chain guard as pictured below.

201.16 Bodywork Components:
CIK appearing bodies, CIK homologated, and aftermarket bodywork that is made from CIK-similar material are allowed. Bodywork is defined as two side pods, nose cone and driver fairing and all pieces are required in all classes. No bodywork may extend wider than the rear tire/wheel at any time. No part of the bodywork can be used as a fuel tank. No weight or ballast can be placed inside or on the bodywork. Cutting the bodywork for the starter hole and/or radiator in a water cooled class is the only cutting that is allowed. Bodywork must be properly attached and appear neat. Any bodywork that appears loose or that may fall off while on the track could be cause for a black flag.
*** Cadet bodywork including the nose shall be used on Cadet Karts and Cadet karts only**.

201.17 Front Bumper:
Two steel tubes are required for the front bumper: top tube
must be a minimum diameter of 0.625” and attached to the frame at each end, bottom tube must be a minimum diameter of 0.750”, both tubes shall have a minimal wall thickness of 0.065” and shall be attached to the frame at each end. Both tubes must be used to attach the nose cone to the kart. If pedals are mounted to the bottom tube it must be welded or through-bolted to the frame.

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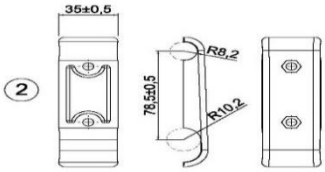
201.17.1 Front Bumper Support:

Shall be 2 pieces made of plastic and cannot be modified in any way. The measurements below are using CIK Homologation bumpers, top bar is 16mm, bottom bar 20mm. The dimensions below are in mm.



201.18 Nose Cone:

The nose cone shall be mounted with butterfly clamps. If nose cone comes off while on track before receiving checkered flag, competitor will receive the black flag. Nose cones must be used as manufactured and cannot be altered in any way. Bottom of nose shall be a minimum one-half inch (½") off the ground and top of nose shall not be above the top of the front tires. Minimum nose width is 39 3/8"; maximum width cannot be wider than the front tires. Maximum overhang from center of front axle to tip of the nose cone is 26 3/4". Measurements will be performed ith wheels straight ahead and without driver in kart.*

Cadet nose shall be used on Cadet Karts and Cadet Karts only.

201.19 Side Pods and Nerf Bars:

Side pods must be mounted with the intended manufactured nerf bar for the side pod that is being used. Side pod cannot cover any part of the driver or frame. If side pod comes off while on track, competitor will receive the black flag. Bottom shall be a minimum of ½" and maximum of 2 5/8" above the ground, rear shall be no more than 2 5/8" from rear tire, and front shall be no more than 5 7/8" from front tire. Maximum width of side pods is 55 1/8" if the rear track is set at 55 1/8". Measurements will be performed with wheels straight ahead. Nerf bars shall be steel tubing with a minimum diameter of 0.630" and attached to the frame at two (2) points.

*** Side pods shall not be wider than the rear tires at any time and shall NOT be any more than 1.5" inside either rear wheel.**

*** Cadet side pods shall be used on Cadet karts and Cadet karts only.**

201.20 Driver Fairing:

The driver fairing must be mounted with bendable material that is attached to the uprights, frame or floor pan and cannot expose any sharp edges that could harm the driver. No part of the fairing shall extend more than 1" above the top of the steering wheel. Minimum fairing width is 9 7/8"; maximum width is 11 13/16". Measurements will be performed with wheels straight ahead; height of fairing will be checked on scales. If an official feels that the height of the fairing is hindering the driver's vision, the fairing must be lowered. No part of the driver fairing can be behind and/or lower than the top of the nose cone that could stop the nose cone from being pushed back.

*** Cadet driver fairing shall be used on Cadet Karts and Cadet karts only.**

201.21 Rear Bumper:

CIK style PLASTIC rear bumpers are mandatory in all classes. Bumper shall be a minimum of 1" behind rear tire as raced. Adjustable width bumpers are legal. The bumper shall cover at least 50% of each rear tire and shall not extend outside of the rear wheel/tire at any time. The rear bumper must remain as an OEM part; it cannot be cut in any way to narrow or shorten. Metal rear bumpers are not allowed except in Kid Kart.

*** Cadet bumpers cannot be used on standard karts.**

201.22 Numbers:

All karts shall have legible numbers without tire marks or other items such as decals applied. The number must be black on a yellow background. The numbers must be at least 5 ½" tall, at least a ¾" body, and at least ½" wide yellow border around each number.The numbers must be on driver fairing, both side pods and rear bumper prior to entering the track. All karts shall use the number that was assigned to the driver at registration and numbers will consist of one to three digits only. We do not use letters for scoring, they are not acceptable.

*** Anyone not having any of the above could be black flagged during any session.**

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201.22 Numbers:

201.22.1 Unreserved Number Hierarchy:

If two competitors register for any karting challenge event with the same unreserved number, the number will be given to the competitor who most recently competed in a Karting Challenge event with that number. If both competitors are registering for the first time, the number will go to the competitor who registered first.

201.23 Rear View Mirrors:

Rear view mirrors are not allowed on any karts.

201.24 Transponder Rental and Mounting:

If a competitor does not have their own working transponder, they must rent one on the day of the event. THMP has a limited number of rental transponders available at the Front Office. If the rented transponder is not returned at the conclusion of the event, the competitor will be charged full retail price for the cost of the unit.

201.24.1 Transponder Mounting:

The transponder shall be mounted securely and safely to the kart. The transponder must be mounted behind the kingpin using two vertical lines at minimum of 9” from center of king pin to the front edge of the transponder. One transponder per kart is allowed. Transponders are mandatory from the beginning of controlled practice through the end of the event. The competitor is responsible for mounting (and remembering to mount) his/her transponder in the proper manner for functionality.
Transponder must be mounted up and down (so you can read it) with no objects below it i.e., lead.

201.24.2 Transponder Mounting Penalty:

Starting with the qualifying round if the transponder is not mounted on the kart, the competitor will not be allowed on track.
If a Competitor does not have a transponder on during practice and they recieve no time in a qualifying session, they will recieve no time and start in the rear of the next competitive session.

201.25 Chassis/Kart Change:

Changing an un-repairable chassis to a comparable chassis of the same manufacture is allowed after tech approval. Competitor will start in the rear of the next competitive session. Following approval of the requested chassis change from a Tech Official, a new chassis band will need to be obtained from the THMP Tech department, the Pre-Tech sheet will need to be updated with the new chassis band number.

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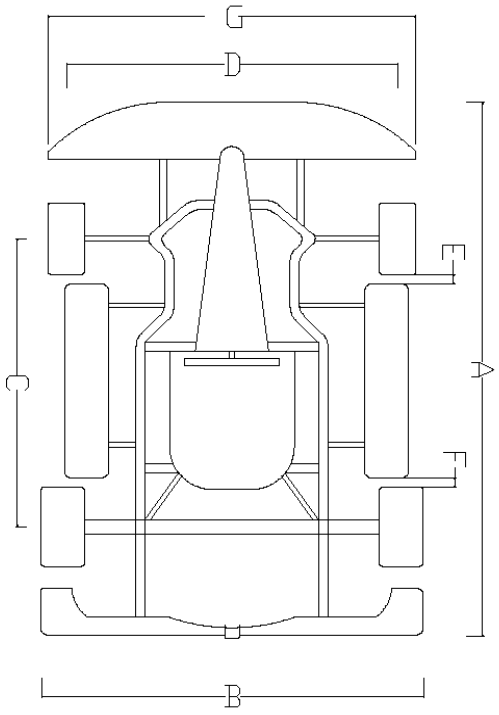
201.26 Kart Dimensions:



Kart Dimensions		
All Measurement Are Done with Wheels Straight Ahead and No Driver		
Letter	**Description**	**Measurement**
A	Cadet Maximum Length	71"
	Standard Maximum Length	82"
B	Maximum Rear Wheel Outside Width	55 1/8"
	Minimum Rear Bumper Width	Cover 50% of both tires
	Maximum Rear Bumper Width	Bumper cannot extend past outside edge of rear tire/wheel
C	Cadet Minimum Wheel Base	35"
	Cadet Maximum Wheel Base	41"
	Standard Minimum Wheel Base	39 3/4"
	Standard Maximum Wheel Base	43"
D	Minimum Front Width Center to Center	28"
E	Maximum Between Front Tire and Side Pod	5 7/8"
F	Maximum Between Rear Tire and Side Pod	2 5/8"
G	Minimum Nose Cone Width	39 3/8"
	Maximum Nose Cone Width	Cannot be wider than outside edge of front tires.

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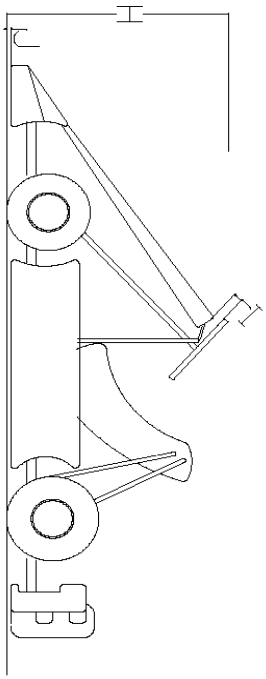

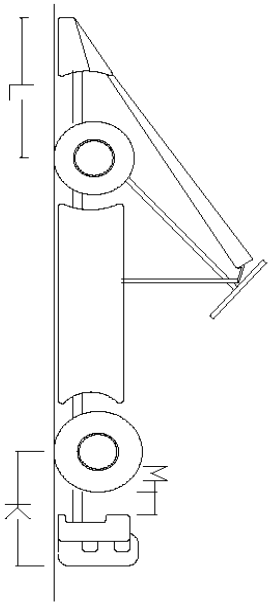

Kart Dimensions		
All Measurement Are Done with Wheels Straight Ahead and No Driver		
Letter	**Description**	**Measurement**
H	Maximum Height	26"
I	Maximum Height of Fairing Above Steering Wheel	1"
J	Minimum Between Ground to Nose and Ground to Front of Side Pod	1/2"
	Maximum Between Ground to Nose and Ground to Front of Side Pod	2 5/8"

Kart Dimensions		
All Measurement Are Done with Wheels Straight Ahead and No Driver		
K	Maximum Center of Rear Axle to Back of Bumper	15 1/2"
L	Maximum Center of Front Axle to Front of Nose	26 9/16"
M	Minimum Between Rear Tire and Bumper	1"

201.26.1 Minimum & Maximum Rear Wheel/Tire Width:

All Cadet Chassis Classes –Minimum 41”
Maximum 50”

2 Cycle Standard Chassis Classes – Minimum 53”
Maximum 55 1/8”

Briggs Standard Chassis Classes -- No minimum
Maximum 55 1/8”

*ALL CLASSES Side pods may NOT be wider than rear tires and shall NOT be any more than 1.5" inside either rear wheel.
*

This is for all race conditions.

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400 Series Class Structure:

401 THMP Class Structure:

401.1 Kid Kart:

Driver attained age: 5 -- 7 years old
Minimum Weight: 150 lbs. Comer & IAME Bambino/185 Lbs. Briggs
Engine(s): Comer C-51, Briggs & Stratton LO206 & IAME Bambino
Comer engine to be used Box Stock as supplied.
Briggs engine must conform to Briggs and Stratton United States rule set.
IAME Bambino rules in Section 501
Briggs Exhaust: RLV 4110 pipe and Briggs 557045 Header Only
Briggs coil: Black coil (4100 RPM)
Briggs slide: Black slide (0.310")
Gear Ratios: Comer 10/89, Briggs 17/57 Mandatory
Tires: Slicks MG "SH" Red CIKF/Z Option 4.60 Fronts & 4.60 Rears
Rains MG "WT" or "SW" 4.20 Fronts & 4.20 Rears
***Maximum rear tire circumference is 33"**
Competitors must record the four slick and four rain tires they wish to use for the entire day (Single or Double Final race days) on the Pre-Tech sheet to be turned into Tech **BEFORE** Qualifying.
SFI 20.1 or other USPKS approved Chest Protectors are MANDATORY for all drivers under 13 years old (Section 102.3).
May use either Kid Kart or Cadet chassis with Briggs or IAME Bambino engine only, Comer must use Kid Kart. Must run Cadet Bodywork including the Cadet nose on Cadet chassis.
See Sections 501 & 502 and Briggs or USPKS Websites for additional Engine Rules.

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401.2 Briggs Cadet:

Age: 7 -- 12 years old
Minimum Weight: 255 Lbs.
Engine Briggs & Stratton LO206
Carburetor Slide: Green slide (0.490")
Exhaust: RLV 4110 pipe and Briggs 557045 Header Only
Tires: Slicks MG "SH" Red CIKF/Z Option 4.60 Fronts & 4.60 Rears
Rains MG "WT" or "SW" 4.20 Fronts & 4.20 Rears
*Competitors must record the four slick and four rain tires they wish to use for the entire day (Single or Double Final race days) on the Pre-Tech sheet to be turned into Tech **BEFORE** Qualifying.
*SFI 20.1 or other USPKS approved Chest Protectors are MANDATORY for all drivers under 13 years old (Section 102.3).
*May use either Cadet or Standard chassis. Must run Cadet Bodywork including the Cadet nose on Cadet chassis.
***See Section 502 and Briggs Website for additional Engine Rules.**

401.3 IAME Micro Swift:

Age: 7 – 10 years old
Minimum Weight: 225 lbs.
Engine: IAME Swift 60cc TAG Engine
Carburetor: Tillotson HW-31A
Exhaust: IAME OEM Swift 16mm (No-Go) Restricted Header & Pipe
Tires: Slicks MG "SH" Red CIKF/Z Option 4.60 Fronts & 4.60 Rears
Rains MG "WT" or "SW" 4.20 Fronts & 4.20 Rears
Competitors must record the four slick and four rain tires they wish to use for the entire day (Single or Double Final race days) on the Pre-Tech sheet to be turned into Tech **BEFORE** Qualifying.
SFI 20.1 or other USPKS approved Chest Protectors are MANDATORY for all drivers under 13 years old (Section 102.3).
May use either Cadet or Standard chassis. Must run Cadet Bodywork including the Cadet nose on Cadet chassis.
See Section 504 and USPKS Website for additional Engine Rules.

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401.4 IAME Mini Swift:

Age: 8 – 12 years old
Minimum Weight: 245 lbs.
Engine: IAME Swift 60cc TAG Engine Carburetor: Tillotson HW-31A
Exhaust: IAME OEM Swift Header & Pipe
Tires: Slicks MG "SH" Red CIKF/Z Option 4.60 Fronts & 4.60 Rears
Rains MG "WT" or "SW" 4.20 Fronts & Rears
Competitors must record the four slick and four rain tires they wish to use for the entire day (Single or Double Final race days) on the Pre-Tech sheet to be turned into Tech **BEFORE** Qualifying.
SFI 20.1 or other USPKS approved Chest Protectors are MANDATORY for all drivers under 13 years old (Section 102.3).
May use either Cadet or Standard chassis. Must run Cadet Bodywork including the Cadet nose on Cadet chassis.
See Section 504 and USPKS Website for additional Engine Rules.

401.5 Briggs Junior:

Age: 12 -- 15 years old
Minimum Weight: 320 Lbs.
Engine: Briggs and Stratton LO206
Carburetor Slide: Gold slide (0.610")
Exhaust: RLV 4110 pipe and Briggs 557045 Header Only
Tires: Slicks MG "SH" Red CIKF/Z Option 4.60 Fronts & 7.10 Rears
Rains MG "WT" or "SW" 4.20 Fronts & 6.00 Rears
Competitors must record the four slick and four rain tires they wish to use for the entire day (Single or Double Final race days) on the Pre-Tech sheet to be turned into Tech **BEFORE** Qualifying.
SFI 20.1 or other USPKS approved Chest Protectors are MANDATORY for all drivers under 13 years old (Section 102.3).
Must use Standard chassis.
See Section 502 and Briggs Website for additional Engine Rules

401.6 IAME KA100 Junior:

Age: 12 – 15 years old
Minimum Weight: 330 lbs.
Engine: IAME KA100
Carburetor: HW-33A
Exhaust: IAME OEM KA100 22mm (No-Go) Restricted Header & Pipe
Tires: Slicks MG "SH" Red CIKF/Z Option 4.60 Fronts & 7.10 Rears
Rains MG "WT" or "SW" 4.20 Fronts & 6.00 Rears
Competitors must record the four slick and four rain tires they wish to use for a Single Final race day on the Pre-Tech sheet to be turned into Tech **BEFORE** Qualifying.
SFI 20.1 or other USPKS approved Chest Protectors are MANDATORY for all drivers under 13 years old (Section 102.3).
Must use Standard chassis
See Section 505 and USPKS Website for additional Engine Rules.

401.7 IAME X30 Junior:

Age: 12 – 15 years old
Minimum Weight: 320 lbs.
Engine: IAME X30
Carburetor: Tillotson HW-27A
Exhaust: IAME OEM X30 22.7mm (No-Go) Restricted Header & Pipe
Tires: Slicks MG "SH" Red CIKF/Z Option 4.60 Fronts & 7.10 Rears
Rains MG "WT" or "SW" 4.20 Fronts & 6.00 Rears
Competitors must record the four slick and four rain tires t on the Pre-Tech sheet to be turned into Tech **BEFORE** Qualifying.
SFI 20.1 or other USPKS approved Chest Protectors are MANDATORY for all drivers under 13 years old (Section 102.3).
Must use Standard chassis
See Section 506 and USPKS Website for additional Engine Rules.

401.8 Briggs Senior:

Age: 15+ years old
Minimum Weight: 365
Engine: Briggs and Stratton LO206
Exhaust: RLV 4110 pipe and Briggs 557045 Header Only
Tires: Slicks MG "SH" Red CIKF/Z Option 4.60 Fronts & 7.10 Rears
Rains MG "WT" or "SW" 4.20 Fronts & 6.00 Rears
Competitors must record the four slick and four rain tires they wish to use for the entire day (Single or Double Final race days) on the Pre-Tech sheet to be turned into Tech **BEFORE** Qualifying.
Must use Standard chassis.
See Section 502 and Briggs Website for additional Engine Rules

401.9 Briggs Heavy:

Age: 15+ years old
Minimum Weight: 390
Engine: Briggs and Stratton LO206
Exhaust: RLV 4110 pipe and Briggs 557045 Header Only
Tires: Slicks MG "SH" Red CIKF/Z Option 4.60 Fronts & 7.10 Rears
Rains MG "WT" or "SW" 4.20 Fronts & 6.00 Rears
Competitors must record the four slick and four rain tires they wish to use for the entire day (Single or Double Final race days) on the Pre-Tech sheet to be turned into Tech **BEFORE** Qualifying.
Must use Standard chassis.
See Section 502 and Briggs Website for additional Engine Rules

401.10 IAME KA100 Senior:

Age: 15+ years old
Minimum Weight: 360 lbs.
Engine: IAME KA100
Carburetor: HW-33A
Exhaust: IAME OEM KA100 Header & Pipe
Tires: Slicks MG "SH" Red CIKF/Z Option 4.60 Fronts & 7.10 Rears
Rains MG "WT" or "SW" 4.20 Fronts & 6.00 Rears
Competitors must record the four slick and four rain tires they wish to use for a Single Final race day on the Pre-Tech sheet to be turned into Tech **BEFORE** Qualifying.
Must use Standard chassis.
See Section 505 and USPKS Website for additional Engine Rules

401.11 IAME KA100 Heavy:

Age: 30+ years old or 15+ driver weight of 180 (gear included)
Minimum Weight: 385 lbs.
Engine: IAME KA100
Carburetor: HW-33A
Exhaust: IAME OEM KA100 Header & Pipe
Tires: Slicks MG "SH" Red CIKF/Z Option 4.60 Fronts & 7.10 Rears
Rains MG "WT" or "SW" 4.20 Fronts & 6.00 Rears
Competitors must record the four slick and four rain tires they wish to use for a Single Final race day on the Pre-Tech sheet to be turned into Tech **BEFORE** Qualifying.
Must use Standard chassis.
See Section 505 and USPKS Website for additional Engine Rules

401.12 IAME X30 Senior:

Age: 15+ years old
Minimum Weight: 365 lbs.
Engine: IAME X30
Carburetor: Tillotson HW-27A
Exhaust: IAME OEM X30 Header & Pipe
Tires: MG Slicks MG "SM" Yellow CIKF/Z Prime 4.60 Fronts & 7.10 Rears
Rains MG "WT" or "SW" 4.20 Fronts & 6.00 Rears
Competitors must record the four slick and four rain tires they wish to use for a Single Final race day [Or eight slick and eight rain tires they wish to use on a Double Final race day] on the Pre-Tech sheet to be turned into Tech **BEFORE** Qualifying. Must use Standard chassis.
See Section 506 and USPKS Website for additional Engine Rules

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500 Engine Rules:

501 General Engine Rules:

501.1 Comparison of Known Stock Part: Any part may be compared to a known stock part for determination of legality.

501.2 Engine Pressure/Vacuum Testing:
THMP may perform a pressure or vacuum test to ensure extra air is not being pulled into the engine for any performance gain. Both pressure and vacuum tests may be performed — engine must hold 5 psi for 60 seconds and/or 5" HG of vacuum for 60 seconds.

501.3 Carburetor Return Spring:
All engines will be required to utilize an auxiliary carburetor spring; below are some examples. If a different type of spring other than one of the examples below is used, it must be approved by one of the Tech Officials.
***If no spring is used you will not be allowed on track.**

501.4 Clutches:
Clutches are required in all classes unless stated under class section.

501.5 Engine Sealing:
It will be each driver's or guardian's responsibility to correctly seal the engine. If the competitor removes the seal under the direction of THMP, they will receive another seal with no penalty. If there is any question as to how to correctly seal the engine, see one of the Tech officials or see pictures in each of the engine sections.

501.5.2 Engine Seal Penalty:
If engine is not sealed after qualifying there will be no penalty if sealed under direction of THMP official before leaving Tech area. If engine seal is missing after a Heat or Final the competitor will be DQ'ed for that race.

501.5.3 Tampering with Engine Seal:
Any competitor that tampers with any engine seal be disqualified from the total event receiving zero points.

501.6 Engine Change:
Changing an engine is allowed after tech approval. Competitor will start in the rear of the next competitive session. Following approval of the requested engine change from a Tech Official, a new engine seal will need to be obtained from the THMP Tech department, the Pre-Tech sheet will need to be updated with the new engine seal number.

Engine Change Tech – The engine that is being changed or replaced will be teched and will be required to pass tech. If engine fails tech competitor will be DQ'ed for the last race.

501.7 Engine Components:
Engine components may not be changed for that day after qualifying, (i.e., carburetor or sealed exhaust) unless approved by a THMP Tech Official. If any components are changed the competitor will be required to do so under the direction of a Tech Official. Rebuilding carburetor, replacing broken reeds or a cracked (not broken) exhaust is allowed with no penalty. Rebuilding carburetor, checking or replacing reeds can be done in your pit area as long as the engine seal is not cut, if seal needs to be cut it must be done under the direction of a Tech Official.

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501.7.1 Loose or Missing Engine Components:

All engine components from the air box to the pipe must be properly attached from leaving the grid to the end of the race. If an engine component comes loose after crossing the start finish line and receiving the Checkered Flag, the competitor will keep their spot.

501.8 Briggs Engine Claiming:

THMP can claim any Briggs engine if they deem it necessary. The competitor will receive a new engine in it's place.

501.9 Cylinder Ports:

Must remain as manufactured. May be compared to a known stock part. No grinding, polishing, beveling, radiusing, chamfering, rounding or any deviation from the factory presentation will be allowed. Noncompliance with stock or not as manufactured includes any visible or measurable deviations. This may also include excessive wear that can be suspect of a performance enhancement.

501.10 Starter Batteries:

Must be of a sealed or dry cell design. All batteries used must be of enough capacity to start the engine.

501.10.1 Mounting Batteries:

All batteries are to be labeled with the kart number. They are to be affixed in one of the following manners: (1) Factory IAME box and strap with one 175-lb tie wrap, or (2) Aftermarket battery box with minimum of two 175-lb tie wraps. **At least one of the tie wraps shall be installed around the chassis.**

501.10.2 Loss of Battery on Track:

If a competitor loses their battery while on track, they will receive the following penalty:

1) During practice, loses fastest lap of qualifying
2) During qualifying, Pre-Final or Final, is a DQ

501.11 Technical Tools:

The Tech Official may utilize any approved THMP/USPKS tool deemed necessary to assure all engines and equipment meet the requirements outlined in the THMP rule book. This is not limited to but includes No Go Gauges, Cord Width Gauges, Micrometers, Dial Caliper, Dial Indicator, Digatron Fuel Tester and Hydrometer.

501.12 No Go Gauges:

A No Go gauge is a non-adjustable tool that is used to verify a specified opening when inserted. No Go gauges shall be made from heat treated tool steel that is ground to finish size. The gauge or the gauge handle shall be clearly marked. Plug gauges are used to measure round openings. Gauges up to a diameter of 0.361" shall be round; gauges larger than 0.361" shall be ground on each side to achieve a blade width between 1/8" – ¼" unless it is an engine manufactured gauge (See 509.3). Tolerance on gauges up to 0.750 is +0.0001" / -0.000" gauges larger than 0.750" +0.0003" / -0.0000". USPKS recommends that the gauges be held in aluminum handles.

501.12.1 Using No Go Gauges:

These gauges are used to check a specific round opening. If the gauge enters any part of a specific opening, the part is illegal and the competitor will be disqualified. When measuring chamfered or angled round opening, the gauge may enter the chamfer or angle area but the gauge shall not be self-supporting when part being checked is rotated to any angle. If gauge is self-supporting, competitor will be disqualified.

*** Dial Caliper cannot be used for measurements if stated No Go in the USPKS rule book.**

501.12.2 Cord Width No Go Gauges:

Cord width gauges shall be made from heat treated tool steel. They shall be 1/8" +/– 0.015" thick and the width tolerance is +0.0002 / -0.0000". Gauges shall be marked with the width size. These gauges are used to measure port widths.

501.13 IAME Supplied Tech Tools:

IAME Go, No Go gauges and cylinder inserts that have been furnished by IAME will be used as manufactured if available and meet the dimension listed in the PDF. If there is no gauge available by IAME or is not the correct dimension per the PDF a No Go gauge can be used as long as it meets 501.12 specs. or other tools listed in 501.11. These IAME Tech Tools can be found in the PDF's listed on the USPKS website. If these tech tools are not listed in the PDF's please contact the Tech Director for a list. These include but are not limited to, Go Gauge, Taper Gauge, No Go Gauge and Cylinder Inserts.

501.13.1 Head & Header Profile Gauges:

The IAME profile gauge must go into the head or header completely, see examples below. If the gauge will not seat as pictured below the competitor will be given the opportunity to clean the head or header with 2 (two) swipes of a rag. If the gauge will not seat completely after 2 (two) swipes with a rag it will lead to disqualification.

501.14 Piston Squish:

Squish is the smallest distance between the head and the piston. This is done with 0.0625" or 1/16" solder McMaster Carr part # 7667A32 (unless specified by manufacturer) that is inserted through the spark plug hole pointed at cylinder wall in line with the piston wrist pin.

501.14.1 Checking Piston Squish:

- Inserted solder through the spark plug hole pointed at cylinder wall in line with the piston wrist pin.
- Roll piston through top dead center one revolution on both sides of cylinder using a separate piece of solder for each side. Both sides shall be at or greater than the specific engine spec. (See specific engine for spec)
- If squish is found less than minimum spec, the squish will be checked by other Tech Official or Officials up to 3 squish tests total.

501.15 LAD Port Gauge:

The LAD port gauge is used to check the port heights on the inlet, exhaust and transfer ports.

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501.15.1 Checking Exhaust Port Height (LAD Tool):

- Remove cylinder head and attach dial indicator to engine.
- Place piston at top dead center and zero dial indicator.
- Insert LAD Port Gauge (exhaust end) into the exhaust port hooking it in the port. Hold gauge tight against the cylinder wall. Roll piston up to make contact with gauge. While holding slight pressure against gauge, check dial indicator reading. This reading shall be at or greater than specified dimension.

501.15.2 Checking Exhaust Port Height (Light Check):

- Remove cylinder head and attach dial indicator to engine.
- Place piston at top dead center and zero dial indicator.
- Roll piston down to the spec for that engine
- Place light in cylinder or exhaust port
- No visible light shall be seen from the exhaust port or cylinder respectively

501.15.3 Checking Inlet Port Height:

- Remove cylinder head and attach dial indicator to engine.
- Place piston at top dead center and zero dial indicator.
- Insert LAD Port Gauge (inlet end) into the inlet hooking it in the cylinder against the bottom of the inlet track.
- Roll piston down to make contact with gauge with slight pressure, release pressure and check dial indicator reading. This reading shall be at or less than specified dimension.

*** This can be done by removing spark plug and installing the dial indicator with a spark plug adaptor.**

501.15.4 Checking Transfer Port Heights (Blowdown):

- Remove cylinder head and attach dial indicator to engine.
- Insert LAD Port Gauge (exhaust end) into the transfer port hooking it into the port.
- Hold gauge tight against the cylinder wall.
- Roll piston up to make contact with gauge.
- While holding slight pressure against gauge zero dial indicator
- Remove port gauge from transfer port and place in exhaust port hooking it in the port.
- While holding the gauge against cylinder wall, roll piston up to make contact with gauge.
- Hold slight pressure against gauge.
- The dial indicator reading shall be at or greater than specified dimension.

501.16 LAD CC Measuring Plug:

The LAD CC measuring plug is the only cc plug approved by the USPKS for use at THMP for checking cylinder head volume/cc's.

501.16.2 Cylinder Head Volume/CC Fluid:

Marvel Mystery Oil is the only acceptable fluid for the head volume/cc test.

501.16.3 Burette:

Shall be Grade "A" certified or calibrated glass burette with a Teflon stopcock.

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501.16.4 CC Procedure:

- This test is performed before the combustion area is altered; example head being removed.
- Engine is at or near ambient temperature, agreed to by competitor.
- Fill burette with Marvel Mystery Oil, allow time for air bubbles to escape.
- Fill the stopcock and stem area with fluid.
- Install LAD cc plug and torque to minimum of 90 inch pounds.
- Bring piston up to just before top dead center.
- Engine should be close to level.
- Set level in burette to zero.
- Verify burette is at zero with competitor.
- Remove any residual fluid from tip.
- Add the fluid through the hole in the cc plug stopping at approximately one cc short of specified amount of fluid, wait approximately 30 seconds before adding the rest of specified amount of fluid.
- Verify specified amount of fluid was added to the engine with the competitor.
- Slowly roll piston up to top dead center.
- If fluid rises above the top of the cc plug the engine is out of specification and will be DQ'ed.

*** This test shall be done on the engine as raced, cleaning of the cylinder head or piston is not allowed for this test. This test will be performed one time to get an accurate test, re-testing is not allowed whether it is the Official's mistake or the competitor asks for a re-test. If the Official made a mistake this test is over, competitor will not be DQ'ed for this test and engine tech will continue.**

**** Comer C-51 engine requires a 0.310" washer to be used with the LAD cc plug.**

502 Briggs Rules and Regulations:

***THMP will use the Briggs and Stratton LO206 United States Rule Set**
***THMP will monitor the Briggs and Stratton LO206 United States Rule Set for updates as well as the CKNA website/Rule Book for any updates to remain consistent with the National Rules.**
*** Note: All measurements are in inches unless otherwise stated.**
*** No external modifications of any type including air scoops or heat retention additions.**

502.1 Engine:

Shall remain stock as manufactured, factory security seal shall remain intact and unaltered on the short block.

502.2 Carburetor:

B&S #555658 is the only carburetor permitted, must have either the Briggs Diamond logo or Walbro cast on the body. Air may only enter the engine through the carburetor Air Horn, any engine may be spray tested.

502.2.1 Needle Jet:

B&S #555602 aluminum needle, must be stock, unaltered and marked BGB.

502.2.1.1 Needle Jet C-clip:

Needle jet C-clip must be properly installed but may be installed at any of the five factory settings on the needle jet.

502.2.2 Throttle Cable Cap:

Must be properly installed and tight, locking collar must be used in all restricted classes. THMP allows the use of two (2) gaskets for slide optimization in Briggs Junior ONLY. All other restricted classes must remove material from the throttle cable cap where the slide contacts the cap for slide optimization. See picture at #1 in the B&S United States Rule Set.

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502.2.3 Choke:
Choke must be unaltered but **MAY** be fixed open with a spring, rubber band, wire etc.

502.2.4 Idle Pilot Jet:
Must be stock, unaltered. ***0.013" No-Go.**

502.2.5 Idle Circuit Air Hole:
No drilling, reaming, elongating or altering of the hole allowed. Chamfer at the outer edge will be compared to known stock part.
0.1195" No-Go.

502.2.6 Main Jet:
Must be stock, unaltered. **0.0365" Go and 0.039" No-Go.**

502.2.7 Emulsion Tube:
Main nozzle must be stock, unaltered. **0.101" Go and 0.104" No-Go.**
Small holes **0.018" Go and 0.021" No-Go** Large holes **0.026" Go and 0.029" No-Go.**

502.2.8 Venturi:
Vertical Mesurement **0.792" Max. [Gauge A8].**
Horizontal upper & lower wide area **0.615" Max.**
Horizontal "waist" area **0.602" Max. [Gauge A20].**

502.2.9 Air Pick Off Hole:
0.057" Go and 0.061" No-Go [Gauge A9].

502.2.10 Throttle Bore:
Must be as cast. **0.874" Max. [Gauge A7].**

502.2.11 Venturi Idle Fuel Hole:
0.039" No-Go.

502.2.12 O-Ring:
B&S #555601 is required & must be unaltered.

502.2.13 Choke Bore/Air Horn:
1.149" No-Go [Gauge A7],

502.2.14 Carb Slide Cutaway:
0.075" No-Go [Gauge A10].

502.3 Air Filter:
B&S #555729 is the only filter allowed. Filter adapters are not allowed, filter must attach directly to carburetor air horn. For wet weather races a splash shield may be attached as long as it does not create a Ram Air effect. ***A hole no greater than 1/4" may be drilled in the filter end cap for attachment of the rain guard (fastener may not protrude more the 3/4" inside the filter, this hole must be plugged in dry conditions and this is the ONLY modification allowed to the air filter.**

502.4 Intake Manifold:
Intake manifold flange must be flat and may be checked for flatness **0.010" No-Go**
1.740" Min. length, 1.760" Max. length.
0.885" Min. bore, 0.905" Max. bore.

502.5 Carburetor Overflow & Valve Cover Breather: Both of these hoses must be run to a catch can/bottle that is then vented to the atmosphere.

502.6 Short Block:
Must be stock, unaltered. No additions or subtractions of any metal or other substance on the inside or outside of the block.
Pop-up -**0.0035" Max.,** Bore -**2.693" Max.,** Stroke - **2.204" Max.**

502.7 Cooling/Blower Shrouds and Covers:
All pieces of the engine cooling shroud/blower housing and control panel must be stock as supplied and properly installed. Rewind housing and cooling shroud must remain as painted from the factory. Engine shroud may be painted any color. All bolts (except the head bolt) that are used to secure sheet metal shrouds and covers may be replaced with larger diameter bolts. ***No taping, covering or restricting of air to the rewind housing is permitted. Quick release throttle cable linkages are allowed.**

502.8 Damaged Thread Repair:
Shrouds, Valve Cover, Oil Drain, Oil Fill, Blower Housing and Exhaust Pipe attachment studs on the head and lower brackets are allowed to be repaired with a Heli-Coil, Timesert, Keensert or other similar thread repair inserts

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502.9 Engine Ignition Switch:
The ignition switch/kill button must remain in stock location and MUST be operable. It is not permitted to alter the OEM wiring.

502.10 Oil Drain and Fill Plugs:
One magnetic drain plug may be used, oil fill caps are non tech but must be secure and air tight.

502.11 Fuel Pump:
B&S #808656 or 597338 is the only legal fuel pump. The diamond logo and number 808492 or 027013 must be present.

502.11.1 Pulse:
Pulse must come from the oil fill fitting on the engine side cover, aftermarket one piece filler/pulse fittings are permitted.

502.11.2 Pump relocation:
Pump may be relocated in a similar location that is both safe and secure. Mounting the pump upside down or vertically is prohibited.

502.11.3 Brass Vent:
The use of silicone sealant on the brass vent IS permitted and recommended, a fuel pump return line is prohibited.

502.11.4 Carburetor Supply Line:
The fuel line from the pump to the carburetor must be a single piece of flexible tubing secured at both ends. Inner Diameter of the fuel line must be uniform and continuous at 1/4" and completely free of any means to create an obstruction of flow.

502.11.5 Fuel Filter:
A fuel filter is not required but highly recommended. Only one filter may be used and it must be located between the supply tank and the fuel pump inlet.

502.12 Head Gasket:
B&S #555723 is the only gasket allowed. Minimum thickness allowed is **0.047"** using a micrometer. Four measurements will be taken per the B&S United States Rule Set diagram at #20b and three of the four must pass the minimum thickness reading.

502.13 Cylinder Head:
The only legal head is the "RT-1" casting. Cylinder head must be as cast. B&S #555690 heat disperser may be installed in the exhaust bolt boss per factory instructions.

502.13.1 Combustion Chamber Dimensions:
Shallow area depth **0.031" Min.**
"HMZ" zone depth **0.342" Min.** See B&S United States Rule Set at #19e for "HMZ" diagram. Combustion chamber at widest part **2.640"**

502.13.2 Valve Guides: B&S #555645 is the only allowable replacement valve guide. Depth from head gasket surface to the intake valve guide is **1.255" Max.**

502.13.3 Ports:
Both ports AS CAST, no addition or subtraction of material in any form or matter. No de-burring, machining, honing, grinding, polishing, sanding, media blasting etc. Transition from intake bowl to port must have factory defined machining burr.

502.13.3.1 Intake Port Diameter: 0.918" Max.

502.13.3.2 Intake Port Pocket Bowl: 0.952" No-Go

502.13.3.3 Exhaust Port Diameter: 0.980" Max.

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502.13.4 Valve Seats:
Must remain factory specification with one 30 and one 45 degree angle only. Seats can and will be compared to factory stock, excessive material removal during valve maintenance is not permitted.

502.13.4.1 Intake Valve Seat Diameter:
0.972" Max.

502.13.4.2 Exhaust Valve Seat Diameter:
0.850" Max.

502.14 Intake Valve:

502.14.1 Weight:
27.8 grams

502.14.2 Valve Stem Diameter:
0.246" - 0.247"

502.14.3 Valve Head Diameter:
1.055" - 1.065"

502.14.4 Valve Length:
3.3655" Min.

502.14.5 Valve Margin:
0.057" Min.

502.15 Exhaust Valve:

502.15.1 Weight:
27.2 grams

502.15.2 Valve Stem Diameter:
0.246" - 0.247"

502.15.3 Valve Head Diameter:
0.935" - 0.945"

502.15.4 Valve Length:
3.3655" Min.

502.15.5 Valve Margin:
0.060" Min.

502.16 Valve Springs:
Single coil stock, unaltered B&S #26826. Must be identical in appearance to factory part and have 4.00 to 4.75 coils.

502.16.1 Wire Diameter:
0.103" - 0.107"

502.16.2 Length:
0.940" Max.

502.16.3 Inside Diameter:
0.615" Go and 0.635" No-Go.

502.17 Rocker Arms:
B&S #555711 or #797443 must be stock, unaltered. Mounting positions may not be altered in any manner. No thread repairs to the mounting holes are allowed. No bending of the studs.

502.17.1 Overall Length:
2.820" Min.

502.17.2 Rocker Arm Studs:
B&S #694544 or 797441 must be stock unaltered and in stock location.
*Arm #555711 must be used with Stud #694544
*Arm #797443 must be used with Stud #797441

502.17.3 Rocker Arm Stud Plate:
Must be bolted to the head with one OEM stock B&S gasket only, thickness 0.060" Max.
Rocker plate to head fastener holes must remain stock dimension 0.289" Max.

502.17.4 Rocker Ball Diameter:
0.950" - 0.610" Max.

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502.18 Push Rods:
B&S # 555531 must be stock, unaltered.

502.18.1 Diameter:
0.183" Min. - 0.190" Max.
To be check in 3 points along the length and must pass 2 planes within 360 degrees of rotation at each point.

502.18.2 Length:
5.638" Min. - 5.658" Max.

502.19 Camshaft Profile:
Maximum valve lift to be checked from the top of the retainer. Valves must be adjusted to zero lash.
0.255" Max. Intake and Exhaust.

502.19.1 Profile Limits:

	Intake Lift	Exhaust Lift
0.006"	59-51 BTDC	101-93 BBDC
0.020"	16-12 BTDC	59-55 BBDC
0.050"	0.5-4.	43-39 BBDC
0.100"	17-21 ATDC	26-22 BBDC
0.150"	33.5-3	9-5 BBDC
0.175"	43-47 ATDC	1-5 ABDC
0.200"	54-58 ATDC	11.5-15.5 ABDC
0.225"	68-72 ATDC	25-29 ABDC
Max Lift	0.257"	0.259"
Min Lift	0.252"	0.252"
0.225"	38-34 BBDC	76-72 BTDC
0.200"	24.5-2	62.5-58.5 BTDC
0.175"	14-10 BBDC	52-48 BTDC
0.150"	4.5-0.	42-38 BTDC
0.100"	12-16 ABDC	25.5-21.5 BTDC
0.050"	29-33 ABDC	8.5-4.5 BTDC
0.020"	45.5-4	8-12 ATDC
0.006"	83-91 ABDC	47-55 ATDC

***A single point on each lobe may be off by a maximum of 2 degrees without issue with the exception of the 0.006" check point.**

502.20 Flywheel:
B&S #555683 or #84007232 are the only flywheels allowed. Must be stock, unaltered.
No modifications to the flywheel or fan allowed, no machining, glass beading, sand blasting, painting or coating is allowed.
A flywheel fan with broken fins must be replaced with B&S #692592.

502.20.1 Weight:
Flywheel, fins and four bolts.
4 Lbs. 1 Oz.

502.20.2 Key:
Key must be stock, unaltered with B&S logo. No offset keys.

502.20.2.1 Key Width:
0.1825" - 0.1875"

502.21 Ignition System:
Temperature thermocoupler is allowed as long as the spark plug sealing washer and/or the cylinder heat shield with spark plug hole are unaltered.

502.21.1 Coil:
B&S # 555718 (Green) is the only coil for all classes except Kid Kart, Kid Kart must use B&S #555725 (Black). Must be stock, unaltered, no modification of any kind allowed (including mounting bolts and holes, coil legs may not be bent in any way). Air gap is Non-Tech.

502.21.2 Spark Plug:
Autolite AR3910X is the only plug permitted. Must be unaltered in any way from the OEM. Must have "Autolite" and "AR3910X" identification on the insulator. Sealing washer must be in place and unaltered.

502.21.2.1 Plug Boot:
B&S #555714 is the only boot permitted.

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502.21.3 Ignition Timing:
Using a degree wheel dialed in with the positive stop method, ignition timing must not exceed 26 degrees. Timing checked in the direction of normal engine rotation. Take this reading when the back side of the leading coil leg is lined up with the leading edge of the first magnet on the flywheel. See diagram at #30f in the B&S LO206 United States Rule Set.

502.22 Crankcase Cover:
Must be B&S stock, unaltered, "as cast from factory" condition. No alterations, addition or subtraction of metal or any other substance to the crankcase cover.

502.23 Starter:
B&S #695287 must be retained as produced and intact. Recoil housing may be rotated but may not have any additions or alterations to restrict airflow.

502.24 Exhaust:

502.24.1 Header:
B&S # 557045 must be used at THMP. Header must be completely wrapped (360 degrees) with an approved non-asbestos insulation material or sleeve, starting approx. 3 inches from the exhaust flange and **MUST** extend to where the first header support bracket meets the header.

502.24.1.1 Header Gasket:
Gasket and/or silicone are allowed to seal header to the head (one gasket max.)

502.24.1.2 Header Fasteners:
Studs or bolts are permitted to fasten header to the head**. Bolts or nuts must be safety wired.**

502.24.2 Silencer Pipe:
RLV 4110 silencer pipe must be used at THMP.

502.25 Clutch:
Refer to page 21-25 of the B&S United States Rule Set for diagrams/photos of approved clutches.
Clutches or sprocket conversion drums/kits must be used as shipped from the original manufacturer.
Mixing of parts between clutch lines/manufacturers or removing parts (i.e.grease gaurd etc.) is prohibited.
No alteration or machining of of the clutch allowed except light sanding of the shoe and drum for surface mantenance.
Interchangeable drivers and driver configuration (#35 or #219), driver clip/lock, clutch key and crankshaft fastener kit are non-tech.
OEM springs and weights are racer's choice but **MUST** remain stock, unaltered.
Clutch coolers and aftermarket coatings are prohibited.

502.25.1 Kid Kart:
Must run the supplied B&S #555727 Max Torque clutch in stock unaltered form. Springs and clutch key are non-tech..

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502.25.2 All Other Classes:
Must run one of the following clutches;
Inferno Racing by Hilliard: Fire, Flame Blaze or Fury
Max Torque: Dragon Skin or SS
Noram/Premier: Magnum, GE, Ultimate or Stinger (Stinger must be converted to stamped drum).

502.25.3 Sprocket Conversion Drums/Kits:
Sprocket conversion drums/kits made by the manufacturers of the approved clutches are the only legal kits.

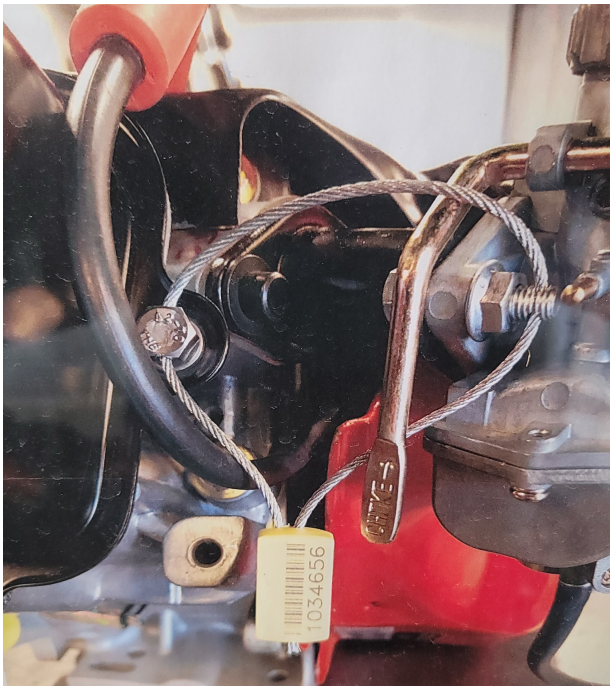
502.25.4 Clutch Claim Rule:
Per standard sanctioning body guidelines, claiming can be implemented, maximum of $160.00.

502.26 Briggs Rule Hierarchy:

1. Most current B&S LO206 United States Rule Set.
2. Most current CKNA Rule Book and website updates.
3. Trackhouse Motorplex 2024 Sporting Regulations (this document)
4. Driver's meeting announcements and rule clarifications (supplemental rules to any event).
5. Race Director's decision or clarification of any rule(s) during any event.

502.27 Sealing the Briggs LO206 Engine:

Seal one (1) valve cover bolt and one (1) carburetor bolt exactly like the photo.



- Recommend at least a 5/64” hole in all fasteners.
- Hole and cable must go completely though head of valve cover bolt and threaded portion of carburetor bolt.
- If cable will not go through seal push the cable back and forth a few times to release the lock inside the seal.

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503 IAME Bambino M1 Rules & Regulations:

***Note: All measurements are in inches unless otherwise stated.**
***Homologation Document listed on the USPKS website will be used for anything not listed below.**
***No external modifications of any type including air scoops or heat retention additions.**

503.1 Engine:
Shall remain stock as manufactured.

503.1.1 Engine Shroud:
Engine shroud may be placed in either direction but must not be altered in any way.

503.1.2 Tape on Engine Shroud:
Placing tape on the engine shroud is not allowed.

503.2 Carburetor:
Tillotson HS-325A Shall be as manufactured.
*Bypassing fuel or air to the motor in any way other than as manufactured is illegal.

503.3 Fuel Filter:
Any fuel filter is permitted. If utilized, it must be between the tank and carburetor.

503.4 Air Filter & Cover:
OEM air filter cover shall be used as manufactured.

503.5 Spark Plug:
Only NGK – BR8EG, BR8EIX, BR9EG, BR9EIX, BR10EG or BR10EIX can be used with the OEM washer in place. If a cylinder head temperature sensor is utilized, the OEM washer may be removed. Commonly used, stock, cylinder head temperature sensors may be used for comparison.

503.5.1 Spark Plug Boot:
OEM or NGK

503.6 Muffler:
Must use OEM muffler. Excessive leakage in any part of the exhaust system is illegal and competitor could be disqualified. Exhaust Gas Temperature sensors are illegal.

503.6.1 Exhaust Manifold:
OEM exhaust manifold must be in place, 13.5 mm maximum.

503.7 Clutch:
As factory supplied. Maximum drum ID 3.354" (85.2mm). Must be IAME 10 tooth drum without holes. Oiling the clutch is illegal. Must pass clutch test: while on the kart stand competitor will start engine and by holding the brake and applying throttle RPM must not exceed 5000.

503.7.1 Clutch Test Procedure:
1) Place kart on secure stand in a safe location
2) Verify the axel spins freely
3) Start the engine, apply throttle a few times to clear out engine
4) Apply full throttle and full brake at the same time without allowing any tire rotation (this may take a couple try's)
5) Have someone check your gauge for maximum RPM (cannot exceed 5000 RPM)

503.8 Recoil/External Starter:
Either the recoil or external starter is allowed. Competitor may remove the rope, plastic rope spool and recoil spring if they chose. The two rotating parts on the motor that the recoil engages in must remain in place and the recoil cover must remain place even if all internal parts are removed.

503.9 Timing Procedure:
1) Insert dial indicator in spark plug hole
2) Zero at TDC
3) Roll piston back to align marks
   Per M1 60cc - Pull Start – USA PDF Dated 22/03/2017 (Found on Rt.66 website)
4) Reading must be between 0.035" (0.9mm) -0.059" (1.5mm) before TDC

Note – All ignition parts must be OEM and unaltered.

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504 IAME Swift Rules and Regulations:

*** Must be USA registered engine.**
*** Note: All measurements are in inches unless otherwise stated.**
*** Homologation Document listed on the USPKS website will be used for anything not listed below.**
*** No external modifications of any type including air scoops or heat retention additions.**

504.1 Carburetor:

Tillotson HW-31A

Max. Venturi (No Go)	17.15mm
Max Throttle Bore (No Go)	22.10mm

Stock butterfly screw shall be in place
*Bypassing fuel or air to the motor in any way other than as manufactured is illegal.

504.1.1 Carburetor and Manifold Gaskets:

Each of the carburetor and manifold mounting gaskets must be greater than 0.010" in thickness (0.010" No-Go-).

504.1.2 Carburetor Gaskets and Diaphragms:

The color of the gasket or diaphragm is a non-tech item. Must be OEM and withing the OEM specs.
See 504.11 for specs.

504.2 Fuel Filter:

Any fuel filter is permitted. If utilized, it must be between the tank and carburetor.

504.3 Air Box and Filter:

Blue OEM air box shall be as manufactured, one (1) 23mm tube (No Go). One (1) 0.200" drain hole is allowed. The OEM filter (IAME # 10751-1) must be used. Any external forms of air ducts forcing air inside of air box is illegal. Rain covers are legal during rain conditions as long as it does not act as a ram air device.
*** Air filter is not required in competitor's choice or declared rain condition.**

504.4 Spark Plug:

Must be as manufactured. Either the OEM spark plug washer, head temp sensor or indexing washer shall be used. Maximum spark plug length of 18.5mm as ran (with washer or temp sensor)
Any of the following plugs may be used:
Autolite AR50, AR51, AR52 or AR53
Denso W#ESZU
NGK B ## EG or BR ## EG

504.4.1 Spark Plug Boot:

OEM part PVL #10544 or NGK #8636 (TB05EMA)

504.5 Bearings, Seals, O-Rings and Gaskets:

May be replaced with aftermarket equivalent unless specified OEM. No ceramic or exotic bearings.

504.5.1 Base Gasket:

Gasket required, changing base gaskets is allowed to obtain exhaust port height. Thickness of the gasket is a non-tech item.

504.5.2 Head Gasket:

Head gasket is ***NOT*** required but may be used to meet the minimum squish requirement of 0.025" using 0.0625" or 1/16" solder Rule 501.13.

504.6 Piston and Ring:
Piston and ring shall be OEM as supplied from the manufacturer.

504.7 Mini Swift Exhaust Header:
IAME OEM as supplied. One (1) factory OEM gasket, no spacer or spacers allowed between cylinder and header.

504.7.1 Micro Swift Exhaust Header:
IAME OEM 16mm (0.630") maximum (No Go). Shall have a hole drilled completely through one of the header mounting nuts that will allow the engine seal wire to pass through it. Shall be no leakage at the base of the header.

504.8 Exhaust Pipe:
Shall be OEM as manufactured. Altering internal dimensions or modifications to pipe or silencer end cap is illegal. One hole for exhaust temperature sensor is allowed; if sensor is not used, hole shall be completely plugged. Excessive leakage in any part of the exhaust system is illegal and competitor could be DQ'ed.

504.9 Clutch:
As factory supplied. Maximum drum ID 3.354" (85.2mm). Must be IAME 10 or 11 tooth drum without holes. Oiling clutch is illegal. Must pass clutch test: while on the kart stand competitor will start engine and by holding the brake and applying throttle RPM must not exceed 5000.

504.9.1 Clutch Test Procedure:
1) Place kart on secure stand in a safe location
2) Verify the axle spins freely
3) Start the engine, apply throttle a few times to clear out engine
4) Apply full throttle and full brake at the same time without allowing any tire rotation (this may take a couple try's)
5) Have someone check your gauge for maximum RPM (cannot exceed 5000 RPM)

504.10 IAME Swift Spec:

Minimum Squish (See Rule 501.13)	0.025"
Minimum Exhaust Port Height (LAD Tool)	1.230"
Minimum Exhaust Port Height (Light Check)	1.095"
Inlet Port Height (LAD Tool)	0.585"
Maximum Bore (42.07mm)	1.656"
Maximum Stroke (43.15mm)	1.699"
Minimum Piston Weight W/Ring	60g
Minimum Piston Pin Weight	15.5g
Piston Pin Length (+ - 0.2mm)	35mm
Piston Pin ID (+ - 0.25mm)	8mm
Piston Pin OD (+ - 0.1mm)	12mm
Complete Crankshaft Minimum Weight	1190g
Minimum Clutch Diameter (83mm)	3.267"
Minimum Clutch Drum No/Driver	182g
Minimum Clutch Weight Type 1	460g
Minimum Clutch Weight Type 2 (10/20)	465g
Micro Swift Header (16mm No-Go)	0.630"

504.11 IAME Swift Tillotson Carburetor HW-31A Spec:

Maximum Venturi (17.15mm No-Go)	0.675"
Maximum Bore (22.10mm No-Go)	0.870"
Carb & Manifold Gaskets (No-Go)	0.010"
Metering diaphragm Gasket	0.016" - 0.024"
Metering diaphragm	0.002" - 0.008"
Fuel Pump Gasket	0.028" - 0.035"
Fuel Pump	0.0015" - 0.006"
Minimum Shutter Thickness	0.030"

Stock/OEM butterfly screw shall be in place.

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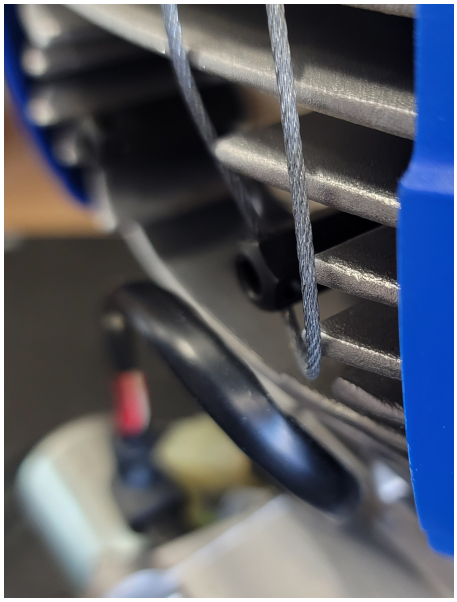
504.12 Sealing the IAME Swift Engine:

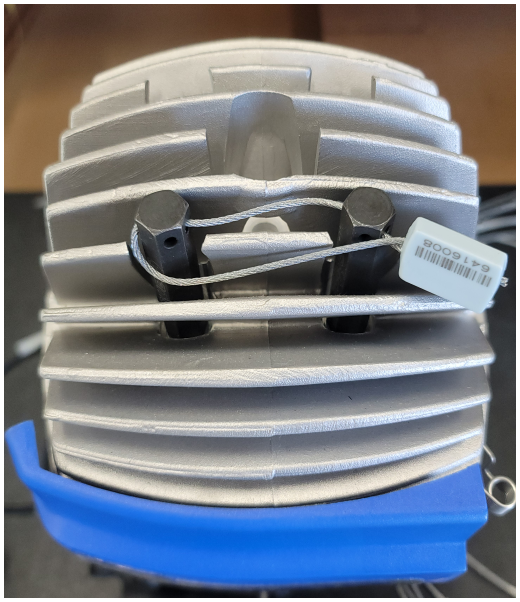
IAME Micro Swift:

Seal – One (1) or Two (2) Head Nut(s) & One (1) Header Nut



IAME Mini Swift:

Seal – Two (2) Head Nuts



- Recommend at least a 5/64” hole in all fasteners.
- Hole and cable must go completely though head of bolt.
- If cable will not go through seal push the cable back and forth a few times to release the lock inside the seal.
- It is recommended that the carburetor also be sealed for practice in competing at the national level.

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505 IAME KA100 Rules and Regulations:

*** Must be USA registered engine.**
*** Note: All measurements are in inches unless otherwise stated.**
*** Homologation Document listed on the USPKS website will be used for anything not listed below.**
*** No external modifications of any type including air scoops or heat retention additions.**

505.1 Air Box:

OEM air box shall be as manufactured with two (2) 23mm tube (No Go). One (1) 0.200" drain hole is allowed. The OEM filter (IAME # 10751-1) must be used. Any external forms of air ducts forcing air inside of air box is illegal. Rain covers are legal during rainy conditions as long as it does not act as a ram air device.

*** Air filter is not required in competitor's choice or declared rain condition.**

505.2 Fuel Filter:

Any fuel filter is permitted. If utilized, it must be between the tank and carburetor.

505.3 Carburetor:

Tillotson HW-33A shall be OEM as manufactured. The carburetor including the finish of the venturi and bore, the arm, throttle shaft, butterfly, slide assembly for jetting and/or manifold shall be OEM and not modified. OEM needle jets are required. Engine and carburetor shall match the specs and carburetor shall be mounted as specified by manufacturer.

* Bypassing fuel or air to the motor in any way other than as manufactured is illegal.

505.3.1 Carburetor Gaskets and Diaphragms:

The color of the gasket or diaphragm is a non-tech item. Must be OEM and within the OEM specs.
See 505.18 for specs.

505.4 Reed Cage:

Only OEM fiberglass reeds are allowed with a minimum thickness of 0.012". Reeds must be OEM, sanding, cutting or removal of any material is illegal. Manifold shape and design shall remain as manufactured; grinding or polishing the reed cage or manifold is illegal. Resurfacing the flat rubber contact surface to reeds and gasket surface, de-burring and minor grinding at reed attachment screws is allowed. Reed cage plates shall remain as manufactured and not be altered in any way. Reed screws are non-tech.

505.5 Spark Plug:

Must be as manufactured. Either the OEM spark plug washer, head temp sensor or indexing washer shall be used. Maximum spark plug length of 18.5mm as ran (with washer or temp sensor)
Any of the following plugs may be used:
NGK B10EG, BR10EG, 6254-105, R6252K-105

505.5.1 Spark Plug Boot:

OEM part PVL #10544 or NGK #8636 (TB05EMA)

505.6 Cylinder Head:
Cylinder head shall be OEM as manufactured; head shall be the same profile as the IAME gauge. Only modification allowed is spark plug thread repair.

505.6.1 Cylinder Head O-Ring or Gasket:
The O-Ring or Head gasket is ***NOT*** required but may be used to meet the minimum squish requirement of 0.041" using 0.0625" or 1/16" solder Rule 501.13.

505.7 Cylinder:
Ports must remain as manufactured, known stock part may be used as a comparison. Bore and stroke shall be per manufacturer spec and will be taken as raced. Any internal modification such as adding, removing or grinding material is prohibited.

505.7.1 Cylinder Base Gaskets:
Gasket required, changing base gaskets is allowed to obtain exhaust port height. Thickness of the gasket is a non-tech item.

505.8 Bearings, Seals, O-Rings and Gaskets:
May be replaced with aftermarket equivalent unless specified OEM. No ceramic or exotic bearings.

505.9 Crankcase:
Crankcase shall be as manufactured; metal removal or polishing is not allowed except for de-burring and or repair from rod failure. Main bearing pocket repair is allowed provided the pockets are not relocated during the process. Bearings and seals must be OEM as manufactured; replacement bearings shall be a standard bearing with steel or plastic retainers with same width and diameter as stock. Dual-row, ceramic or angular contact bearings are illegal. Seals shall be as manufactured and shall not have the spring removed, trimmed or installed backwards. Any internal modification such as adding, removing or grinding material is prohibited unless it is for minor repairs as stated above.

505.10 Crankshaft and Rod:
The crankshaft shall be OEM as supplied from the manufacturer; crank shall be the same manufacturer as the motor. Plastic or aluminum crankshaft stuffing supplied by the manufacturer is required. Removing metal, shot peening, polishing or counterweight plugging is illegal. Weights must match that of the supplied specifications. Rod must be OEM as manufactured; removing metal or modifying rod is illegal. Any rod bearing is legal.

505.11 Piston and Ring:
Piston and ring shall be OEM as supplied from the manufacturer.

505.12 Ignition:
Ignition shall be OEM as manufactured. Flywheel key must be in place and not modified.

505.12.1 Ignition Ground Strap:
A secondary ground strap is allowed from one of the ignition bolts to the case.

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505.13 Exhaust Header and Pipe:

Shall be OEM as manufactured; intentional header and pipe modifications are illegal. Interchanging, plating or ceramic-coating is illegal. The system shall be intact at the start and finish of the race as manufacturer intended. One hole for EGT probe is allowed in the header. If probe is not in place hole must be plugged. Must use OEM gasket, only one is permitted (1.3mm minimum thickness). No spacer or spacers allowed between the cylinder and header. Excessive leakage in any part of the exhaust system is illegal and competitor could be DQ'ed,

505.13.1 Junior Exhaust Header

Junior header shall be 22mm (No-Go). Engine seal must go through one of the header nuts.

505.14 Starter & Battery:

Competitor is allowed to remove the starter and battery if they choose. The starter ring gear must remain in place.

505.15 Clutch:

Clutch shall be OEM as manufactured and within factory spec. Oiling clutch is illegal. Clutch cannot be adjustable and must pass clutch test: while on the kart stand competitor will start engine and by holding the brake and applying throttle RPM must not exceed 6000.

505.15.1 Clutch Test Procedure:

1) Place kart on secure stand in a safe location
2) Verify the axle spins freely
3) Start the engine, apply throttle a few times to clear out engine
4) Apply full throttle and full brake at the same time without allowing any tire rotation (this may take a couple try's)
5) Have someone check your gauge for maximum RPM (cannot exceed 6000 RPM)

505.16 Timing Procedure:

1) Insert dial indicator in spark plug hole
2) Zero at TDC
3) Roll piston back 0.200" before TDC
4) Roll piston forward to align timing marks
5) Dial indicator must read between 0.080" – 0.106" before TDC

505.17 IAME KA100 Spec:

Minimum Squish (See Rule 501.13)	0.041"
Minimum OEM Reed Thickness	0.012"
Minimum Port Height (LAD Tool)	1.420"
Minimum Port Height (Light Check)	1.295"
Rod Length	102mm
Maximum Stroke	54.05mm
Maximum Bore	48.53mm
Timing (Minimum – Maximum)	0.080" – 0.106"
Minimum Piston Weight W/Ring	95g
Minimum Piston Pin Weight	19g
Piston Pin Length (+ - 0.2mm)	39mm
Piston Pin ID (+ - 0.30mm)	10mm
Piston Pin OD (+ - 0.1mm)	14
Minimum Complete Crank Weight	1820g
Minimum Clutch Diameter (83 mm)	3.267"
Minimum Clutch Weight	375g
Minimum Clutch Drum	225g
Minimum Clutch Drum W/Gear	300g
KA100 Junior Header (No-Go)	22mm

505.18 IAME KA100 Tillotson Carburetor HW-33A Spec:

Venturi 24.10mm (No-Go)	0.948"
Bore 28.10mm (No-Go)	1.106"
Metering diaphragm Gasket	0.016" - 0.024"
Metering diaphragm	0.002" - 0.008"
Fuel Pump Gasket	0.028" - 0.035"
Fuel Pump	0.0015" - 0.006"
Minimum Shutter Thickness	0.030"

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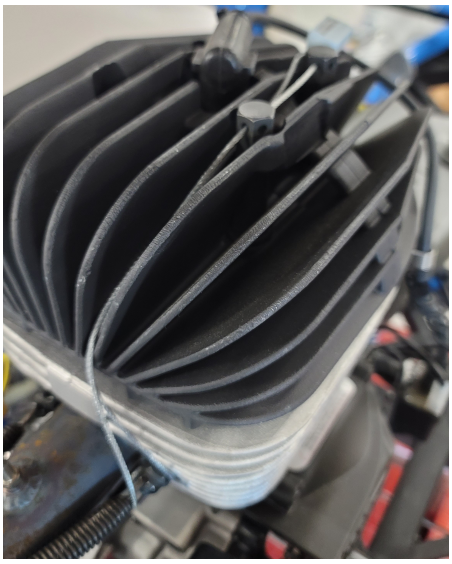
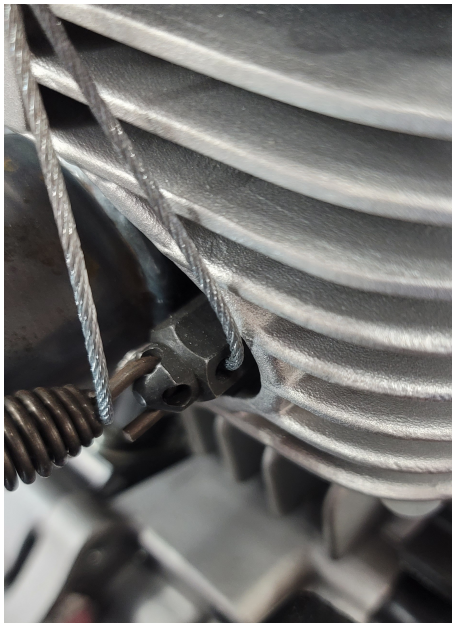
505.19 Sealing the IAME KA100 Junior Engine:

IAME KA100 Junior:

Seal – One (1) or Two (2) Head Nuts & One (1) Header Nut





505.19.1 Sealing the IAME KA100 Senior and Heavy Engine:

IAME KA100 Senior and Heavy:

Seal – Two (2) Head Nuts

- Recommend at least a 5/64” hole in all fasteners.
- Hole and cable must go completely though head of bolt.
- If cable will not go through seal push the cable back and forth a few times to release the lock inside the seal.
- It is recommended that the carburetor also be sealed for practice in competing at the national level.

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506 IAME X30 Rules and Regulations:

*** Must be USA registered engine.**
*** Note: All measurements are in inches unless otherwise stated.**
*** Homologation Document listed on the USPKS website will be used for anything not listed below.**
*** No external modifications of any type including air scoops or heat retention additions.**

506.1 Air Box:

Must use the new 2021 X30 Air Box (part # 30125740).
Max inside diameter of tubes is 23mm. (0.905" No Go)
The OEM filter (IAME # 10751-1) must be used. One (1) 0.200" drain hole is allowed. In rain condition any rain covers are legal as long as it does not act as a ram air device.
*** Air filter is not required in competitor's choice or declared rain condition.**

506.2 Fuel Filter:

Any fuel filter is permitted. If utilized, it must be between the tank and carburetor

506.3 Carburetor:

Shall be OEM as manufactured. The carburetor including the finish of the venturi and bore, the arm, throttle shaft, butterfly, slide assembly for jetting and/or manifold shall be OEM and not modified. OEM needle jets are required. Engine and carburetor shall match the specs and carburetor shall be mounted as specified by manufacturer.
*Bypassing fuel or air to the motor in any way other than as manufactured is illegal.

506.3.1 Carburetor Gaskets and Diaphragms:

The color of the gasket or diaphragm is a non-tech item. Must be OEM and withing the OEM specs.
See 506.18 for specs.

506.4 Reed Cage:

Only OEM fiberglass reeds are allowed with a minimum thickness of 0.012". Reeds must be OEM, sanding, cutting or removal of any material is illegal. Manifold shape and design shall remain as manufactured; grinding or polishing the reed cage or manifold is illegal. Resurfacing the flat rubber contact surface to reeds and gasket surface, de-burring and minor grinding at reed attachment screws is allowed. Reed cage plates shall remain as manufactured and not be altered in any way. Reed screws are non-tech.

506.5 Spark Plug:

Must be as manufactured. Either the OEM spark plug washer, head temp sensor or indexing washer shall be used. Maximum spark plug length of 18.5mm as ran (with washer or temp sensor)
Any of the following plugs may be used:
NGK R6252K-105 or NGK R6254-105
*** During rain conditions NGK-B10 EG or BR10EG may be used.**

506.5.1 Spark Plug Boot:

OEM part PVL #10544 or NGK #8636 (TB05EMA)

506.6 Cylinder Head:
Cylinder head shall be OEM as manufactured; head shall be the same profile as the IAME gauge.

506.6.1 Cylinder Head Gasket:
Head gasket is ***NOT*** required but may be used to meet the minimum squish requirement of 0.035" using 0.0625" or 1/16" solder Rule 501.13.

506.7 Cylinder:
Ports must remain as manufactured, known stock part may be used as a comparison. Bore and stroke shall be per manufacturer spec and will be taken as raced + or – 0.008". Any internal modification such as adding, removing or grinding material is prohibited.

506.7.1 Cylinder Base Gasket:
Gasket required, changing base gaskets is allowed to obtain exhaust port height. Thickness of the gasket is a non-tech item.

506.8 Crankcase:
Crankcase shall be as manufactured; metal removal or polishing is not allowed except for de-burring and/or repair from rod failure. Main bearing pocket repair is allowed provided the pockets are not relocated during the process. Bearings and seals must be OEM as manufactured; replacement bearings shall be a standard bearing with steel or plastic retainers with same width and diameter as stock. Dual-row, ceramic or angular contact bearings are illegal. Seals shall be as manufactured and shall not have the spring removed, trimmed or installed backwards. Any internal modification such as adding, removing or grinding material is prohibited unless it is for minor repairs as stated above.

506.9 Crankshaft and Rod:
The crankshaft shall be OEM as supplied from the manufacturer; crank shall be the same manufacturer as the motor. Plastic or aluminum crankshaft stuffing supplied by the manufacturer is required. Removing metal, shot peening, polishing or counterweight plugging is illegal. Weights must match that of the supplied specifications. Rod must be OEM as manufactured; removing metal or modifying rod is illegal. Any rod bearing is legal.

506.10 Piston and Ring:
Piston and ring shall be OEM as supplied from the manufacturer.

506.11 Bearings, Seals, O-Rings and Gaskets:
May be replaced with aftermarket equivalent unless specified OEM. No ceramic or exotic bearings.

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506.12 Ignition:

Ignition shall be OEM as manufactured. Timing shall be the factory setting. Flywheel key must be in place and not modified. System shall be as supplied with control box mounted with factory markings visible for inspection if applicable.

*** Ignition parts shall all match for that ignition.**

506.12.1 Stator:

The stator holes maybe enlarged if needed to adjust the timing but, must be in compliance with 506.12.3 Ignition Timing Procedure

506.12.2 Ignition Rotor & Key:

Ignition key – Open, No Minimum
Ignition rotor key slot – 0.103" No-Go Maximum
Must be in compliance with 506.12.3.

506.12.3 Ignition Timing Procedure:

1) Install dial indicator and zero at top dead center (TDC)
2) Rotate engine back before TDC at least one (1) revolution of the dial indicator
3) Rotate engine back to TDC
4) The thin line on the flywheel must land somewhere on the wider molded center line on the stator, or to the right side of this line.

506.13 Exhaust Header, and Pipe:

Shall be OEM as manufactured; intentional header and pipe modifications are illegal. Interchanging, plating or ceramic-coating is illegal. The system shall be intact at the start and finish of the race as manufacturer intended. One hole for EGT probe is allowed in the header. If probe is not in place hole must be plugged. Must use OEM gasket, only one is permitted (1.3mm minimum thickness). No spacer or spacers allowed between the cylinder and header. Excessive leakage in any part of the exhaust system is illegal and competitor could be DQ'ed.

506.13.1 Junior Exhaust Header

Junior header shall be 22.7mm (No-Go). Engine seal must go through one of the header nuts.

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506.14 Radiator:

Water system shall have clamps on all hose connections and a radiator catch container for overflow. Thermostats are allowed. Pressurized systems and electric pumps are illegal. Tape may be removed from radiator while on the racing surface.

506.15 Water and Coolants:

Ethylene glycol-based coolants are illegal. Water Wetter or other like surfactants (surface-active agent) can be used.

506.16 Clutch:

Clutch shall be OEM as manufactured and within factory spec. Oiling clutch is illegal. Clutch cannot be adjustable and must pass clutch test: while on the kart stand competitor will start engine and by holding the brake and applying throttle RPM must not exceed 6000.

506.16.1 Clutch Test Procedure:

1) Place kart on secure stand in a safe location
2) Verify the axle spins freely
3) Start the engine, apply throttle a few times to clear out engine
4) Apply full throttle and full brake at the same time without allowing any tire rotation (this may take a couple try's)
5) Have someone check your gauge for maximum RPM (cannot exceed 6000 RPM)

506.17 IAME X30 Spec:

Minimum Squish (See Rule 501.13)	0.035"
Minimum OEM Reed Thickness	0.012"
Timing	Fixed
Minimum Port Height (LAD Tool)	1.340"
Minimum Port Height (Light Check)	1.215"
Rod Length	102mm
Maximum Stroke	54mm
Maximum Bore	54.35mm
Piston Type – Single Dykes Ring	
Minimum Piston Weight W/Ring	128g
Minimum Piston Pin Weight	28g
Piston Pin ID (+ - 0.25mm)	9mm
Piston Pin OD (+ - 0.1mm)	14mm
Minimum Balance Shaft Weight	315g
Minimum Complete Crank Weight	2150g
Min. Complete Crank with Bearings	2220g
Minimum Clutch Diameter (83mm)	3.267"
Minimum Clutch Weight	375g
Minimum Clutch Drum	225g
Minimum Clutch Drum W/Gear	300g
Min. Clutch with Starter Gear	680g
Minimum Flex Length	17"
X30 Junior Header (No-Go)	22.7mm

506.18 IAME X30 Tillotson HW-27A Carburetor Spec:

Venturi 27.05mm (No-Go)	1.0649"
Bore 29.10mm (No-Go)	1.146"
Metering diaphragm Gasket	0.016" - 0.024"
Metering diaphragm	0.002" - 0.008"
Fuel Pump Gasket	0.028" - 0.035"
Fuel Pump	0.0015" - 0.006"
Minimum Shutter Thickness	0.030"

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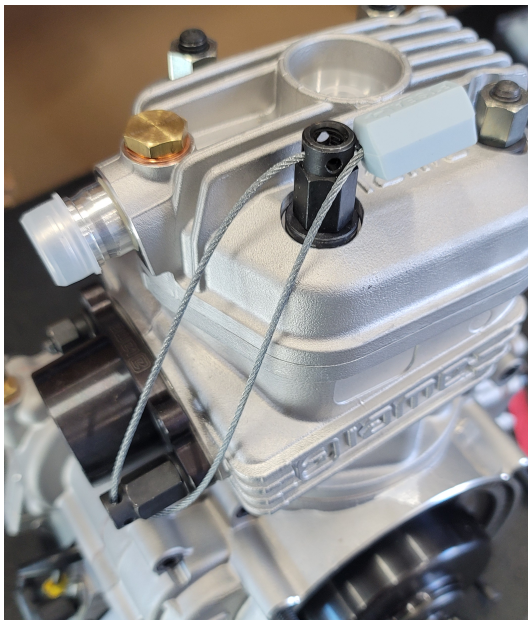
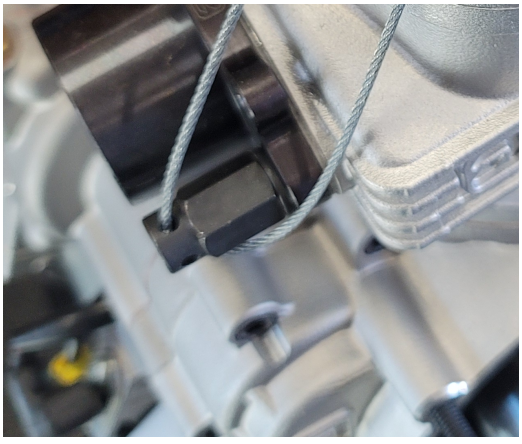
506.19 Sealing the IAME X30 Junior Engine:

IAME X30 Junior:

Seal – One (1) or Two (2) Head Nut (s) & One Exhaust Nut

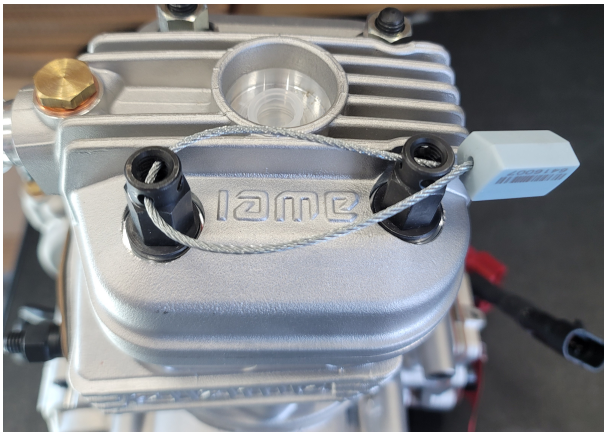




506.19.1 Sealing the IAME X30 Senior Engine:

IAME X30 Senior:

Seal – Two (2) Head Nuts



- Recommend at least a 5/64” hole in all fasteners.
- Hole and cable must go completely though head of bolt.
- If cable will not go through seal push the cable back and forth a few times to release the lock inside the seal.
- It is recommended that the carburetor also be sealed for practice in competing at the national level.

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