SUPER LATE MODELS

SML Rule update 2019

There will be no tire covers, wheel well covers, banners of any kind, covering or concealing any area of the car from the public eye. One single car cover may be used in the event of inclement weather.

The following 604 engine option will be phased out in 2019 and deleted in 2020

604 Engine Option #2 The Cam change option (ADD 50 lb for Cam, Lifter, 1.6 rocker change)

10.3 general body requirements

Rear spoiler must be all clear with no paint or tape.
h. The hood must have positive pull pin type fasteners with 4 pin fasteners on leading edge. The rear deck lid must be hinged, pinned for viewing access no solid riveting of deck lid.
r. All body panels must connect in stock locations, without alteration. Maximum 1”x1” bracing angle

s. Roof and rear window air deflectors Will **NO LONGER BE ALLOWED**.

Z. All bodies (both 1st Gen and Gen 6) are to have a maximum width of **79 ½” at any point this includes front facia valance, wheel well to wheel well.**

NEW GEN 6 FIVE STAR BODY

The new Gen 6 Body from Five Star had been approved for Super Late Model competition in 2019, both for PASS and Oxford Plains Speedway. After reviewing all the wind tunnel results and data provided to us, we have concluded that the body is as close as possible to being equal to the body we have been using.

Richmond Crate Motor race weights

In 2019, Loudon, Richmond, and Thompson Speedways will be a Stock crate only race. 6400 rpm chip rule.The following engines and weight combinations will be the only allowed combo’s
Straight crate 2720 lb
Ford D347SR crate 2775 lb (The D347SR7 will not be allowed)

Richmond big motor race weights:

604 Straight crate 2720lb no chip rule

Crate ford SR / **McGunegill Ford 425 LM Spec** combo's 2780lb
All big motor combo's, 500 cfm 2brl, 2875lb

Thompson Race

In 2019, Loudon, Richmond, and Thompson Speedways will be a Stock crate only race. 6400 rpm chip rule.The following engines and weight combinations will be the only allowed combo's
Straight crate 2720 lb
Ford D347SR crate 2775 lb (The D347SR7 will not be allowed)

Loudon

In 2019, Loudon, Richmond, and Thompson Speedways will be a Stock crate only race. 6400 rpm chip rule.The following engines and weight combinations will be the only allowed combo's
Straight crate 2720 lb
Ford D347SR crate 2775 lb (The D347SR7 will not be allowed)

2019 Pro All Stars Series SLM Rules

Note: Any engine not listed will have to be approved by tech with a recent build sheet and dynamometer run sheet before approval and may be assessed a weight penalty accordingly

There will be no onboard wireless devices allowed. No wireless gauges, tachometers, cell phones, No live streaming. This will result in an immediate disqualification and a fine.

Competitor: A driver, car owner, crew member or other person who participates competitively in a PASS event.

Disqualified: The car and any competitor affiliated with it will be treated as if it did not start the race, thus forfeiting any monies, awards, and championship points it may have otherwise been entitled to.

Event: An PASS-sanctioned motorsports event, which includes the designated race as well as all periods of registration, inspections, time trials, qualifying races, practice sessions, post-race inspections and possible related rain or postponed dates.

PASS: Pro All Stars Series

Official: Appointed by the PASS to officiate as an employee or independent contractor at the event.

Promoter: The entity that, in connection with the event, is responsible for the promotion of the event, as named on the official entry blank.

Series Driver/Team: Any driver or team that competes in an event sanctioned by the PASS.

Tour Driver/Team: Any driver or team that competed in any PASS events.

GEAR RULES

Gear rules are for big motors only (NOT CRATES)

Airborne 5.29

Thompson: PRE 2019 4.86 – 5.04

Speedway 95: 5.29 – 5.88

BEECH RIDGE: 5.29 - 5.88

CANAAN: 5.64 - 5.88

NEW BRUNSWICK: 5.64 - 6.03

OXFORD: 5.29 – 5.88

VALLEE JUNCTION: 6.00 – 6.28

WHITE MOUNTAIN: 6.00 - 6.28

Star: 6.00 – 6.28

Montmagny:

Section 10 - Building Rules

Notice: All model, engine, or equipment changes or modifications not governed by the PASS must be submitted for consideration of approval, not less than 30 days prior to the date of intended usage in PASS competition. Equipment will not be considered as having been approved by reason of having passed through inspection unobserved.

NOTE: ANY ITEMS NOT DESCRIBED AS ALLOWED IN THESE RULES SHOULD BE DETERMINED AS ILLEAGAL UNLESS PASS ISSUES A BULITEN EXPRESSING OTHERWISE.

Additional weight or possible disallowance of competition for non conforming rules infractions. Weight added to be determined by series officials in interest of parity of competition.

10.1 Points, purse money and series sponsor awards will be awarded to all Tour teams that conform to Section **10.1.1**, unless otherwise specified in specific program rules.

10.1.1 All Tour cars must keep the front fenders clear of lettering. The space will be used to display logos for PASS sponsors.

10.2 All Tour cars competing for season points (registered team & driver) must use Five Star, AR Bodies, or other ABC bodies that conform to ABC and PASS measurements. AR Bodies Muscle car bodies are permitted. Note: PASS may grant permission for registered teams to compete with non ABC Bodies in emergency situations with prior request to PASS technical director. Templates will be used. All bodies must be kept neat in appearance.

10.2.1 The following bodies are approved for competition. See the template instructions guideline included for heights and measurements.

NEW GEN 6 FIVE STAR BODY

The new Gen 6 Body from Five Star had been approved for Super Late Model competition in 2019, both for PASS and Oxford Plains Speedway. After reviewing all the wind tunnel results and data provided to us, we have concluded that the body is as close as possible to being equal to the body we have been using.

ABC: Monte Carlo, Impala, Grand Prix, Taurus, Fusion, Charger, Intrepid and Camry

AP Bodies Muscle Car: Camaro, Mustang, Charger

Other non ABC bodies or Muscle car bodies permitted with weight adjustments but not eligible for season points:

Chevrolet - Camaro, Lumina, Monte Carlo, Impala

Buick - Regal

Oldsmobile - Cutlass

Pontiac - Firebird, Grand Prix

Ford - Thunderbird, Taurus, Fusion

Dodge - Intrepid, Charger

Muscle car bodies will be allowed a 7" high spoiler. This will be monitored and adjusted if needed.
There will be no weight deduction for the muscle can bodies

10.3 General Car Body Requirements

a. Cars must be neat appearing and have complete bodies. No altering of bodies or body style permitted without PASS approval. That is, all body panels installed must match the brand of car, which is indicated on the front of the car.
b. Full 1/8" Lexan type windshields must be used. Windshield must have at least 2 internal braces of 3/8" square tubing 4" apart and roughly centered in windshield. Windshield must be mounted solid and braces welded to the roll cage.
c. Full rear windows are mandatory. Must be 1/8" Lexan type, mounted securely, and braced to prevent any collapsing.
d. Rear quarter panel windows may be used.
e. Vent windows are permitted a maximum of 12” from the connecting “v” point of the “A” post and the top of the door horizontally along the top of the door toward the “B” post measuring 12” then vertically 90 degree.
may stick out side of the body no more than 1”. The only panel allowed to attach to the “B” post will be an inlet hose for driver air. No scavenging devices allowed.
f. Minimum ground clearance for the front spoiler/ air dam shall be 3".
g. Rear spoiler shall not exceed 6 1/2" (ABC bodies), 6” (Thunderbird), & 5” (Other bodies) in overall or surface height. The spoiler shall not exceed 60" width and must be mounted at the rear bumper cover. No side bracing or boxing permitted. The maximum height of the top of the spoiler to the ground shall be 38". ABC bodies 41 1/2”.
Rear spoiler must be all clear with no paint or tape.
h. The hood must have positive pull pin type fasteners with 4 pin fasteners on leading edge. The rear deck lid must be hinged, pinned for viewing access no solid riveting of deck lid.
i. The rear window height at the top may not drop more than 1" from center to either side.
j. The roof may have a maximum 3" drop, as measured from a point 12" back from the windshield to the rear window.
k. Rocker panels must be a minimum of 3" from the ground and factory approved ABC legal rockers. Minimum $100.00 fine for rockers to low during inspection and or non approved.
l. Front and rear bumper covers must remain as manufactured. NO Modifications permitted! Only trimming permitted is for wheel clearance and grill opening. Minimum lower edge wrap measurement permitted will be 54 inches as measured from the center seam to fender opening measured at lower leading edge of nose panel. NO “shaping” or contour modifications of panels permitted in any way.
Maximum Nose side to side width at tire may not exceed 83 inches.
m. No carbon fiber body or interior panels allowed.
n. No rub rails or outside body bracing allowed. A 1" x 1/4" aluminum flat bar is allowed on the outside of the door but must be mounted solid on each end with no sharp edges.
o. No dirt style front header or rear bumper sections allowed.
p. The deck lid must not be more than 1" lower than rear quarter heights in any area.
q. Dimensions for body heights “A” and “I” must be no more than 16" difference in drop.

r. All body panels must connect in stock locations, without alteration. Maximum 1”x1” bracing angle
s. Roof and rear window air deflectors Will **NO LONGER BE ALLOWED**.
t. Right Side deck (A & B post to outside of body) maximum of 5". Exceeding 5" but less than 7" require a 25 lb. weight penalty. Left side deck (A & B post to outside of body) maximum of 3".
u. Roof "X" dimension (a point on A post to opposite outer edge of rear spoiler) shall not exceed 3" difference. Exceeding 3" but less than 6" require a 25 lb. weight penalty.
v. Downforce Bodies are allowed with 75 lb. weight penalty but must not be altered from Mfg specs except as allowed on PASS Downforce Body Dimension sheet. Note: Weight penalties may be changed and posted on Tech. Board at any event.
w. “ABC” Fivestar & ARP bodies must fit templates within ½” and maintain all dimensions in diagram for “ABC” Dimension Guidelines page. All car base weights are based off the utilization of the ABC body. Other bodies that are previously mentioned may be permitted with appropriate weight penalty as listed.
x. Absolutely no panning! Also no inner wheel wells obstructing view from engine compartment to rear of car.
y.Radiator shroud must pull air from original opening of the ABC nose. No pulling of air from the base of the shroud to the ground “No Sucking the nose down thru radiator air flow”
Absolutely no panning. Front rear sides, anywhere. Skid plate may cover engine oil pan only!
Z. All bodies (both 1st Gen and Gen 6) are to have a maximum width of **79 ½” at any point this includes front facia valance, wheel well to wheel well.**

10.4 Wheelbase, Tread Width, Frame Height

a. Minimum wheelbase is 102" on either side. The left side wheelbase must be +/- 1" of right side. Maximum wheelbase is 108".
b. Maximum tread width front and rear is 66".
c. Absolute minimum height of frame and cross members is 3" from ground before, during, & after each race event with driver. No lifting allowed. The driver is to remain in the car until ride height is done or authorized by tech. Rear spoiler height maximum must be maintained before, during, & after each race event.

10.5 Engine Location

a. Engine/drive line must be centered within 3" of the tread width of the car. This will be measured from the outermost point of the front tires.
b. Engine crankshaft center height must be a minimum of 10" from the ground.
c. Maximum engine setback is 2" from the forward most sparkplug hole center to a determined line across the center of the upper ball joints.
d. Engine must be positioned in the normal upright mounting, whereby cylinder vertical centerline of a 90-degree engine shall be a 45-degree engine angle to a vertical line projected from the ground plane.

10.6 Driver’s Seat

a. Driver’s seat must be designed for auto racing and constructed of 0.125 inch thick approved material. and adequately padded.
NO FIBERGLASS SEATS PERMITTED.
b. Aircraft-quality hardware is required for attaching seat to seat substructure. Seat must be located with at least 6" (preference of 8") clearance to the nearest longitudinal door bar.
c. The seat substructure must be securely welded to the main roll cage.
d. Seat may not protrude outside 4 point upright or top cage halo.

10.7 Fire Walls

a. Interior of car must be completely enclosed in respect to engine compartment, track surface, wheel wells, and rear (fuel cell) compartments. The area immediately beneath the driver (floor) and the vertical panels surrounding the seat area and foot box must be constructed of minimum 18 gauge steel
(.047 inch) and be of welded construction. Other interior panels may be constructed of aluminum, minimum of 0.040 inch thickness. NO Plastic or carbon interior fiber panels allowed
b. Panel on passenger side of car may be either flat across at transmission height, drop back to floor level after transmission tunnel, or have a 4" flat area over transmission and then angle up to the top of the right side door bars.

10.8 Dashboard

A full width dashboard is required.

10.9 Car Weights

All cars weights listed are race ready with driver, full of fuel, oil and water before race.
Maximum left side weight percentage for ALL cars will be **58%** before, during and after event with NO allowances in any form.
All weights are based off ABC body and perimeter chassis.
No cars under any motor, body, ect. weight combination will weigh less then 2700lb

Added engine weight options…Based off from a 2700 lb standard

The following are available options that are permitted in competition with established weight adjustments as listed below.

Add 25 lbs : 99-03 non ABC template body

Add 75 lbs : Down force non ABC body

There will be a 50lb penalty for non conforming rear ends

Weights may be adjusted for all series options on tracks in excess of 1/2 mile or more in length.
Thompson speedway will run gear rule 4.86-5.04. All built motors will run a Holley 4412 2brl carb. No weight break for crate engines. Standard weight will apply but will be monitored and subject to change.

Richmond Crate Motor race weights

In 2019, Loudon, Richmond, and Thompson Speedways will be a Stock crate only race. 6400 rpm chip rule.The following engines and weight combinations will be the only allowed combo's
Straight crate 2720 lb
Ford D347SR crate 2775 lb (The D347SR7 will not be allowed)

Richmond big motor race weights:

604 Straight crate 2720lb no chip rule
Crate ford SR / **McGunegill Ford 425 LM Spec** combo's 2780lb
All big motor combo's, 500 cfm 2brl, 2875lb

Thompson Race

In 2019, Loudon, Richmond, and Thompson Speedways will be a Stock crate only race. 6400 rpm chip rule.The following engines and weight combinations will be the only allowed combo's
Straight crate 2720 lb
Ford D347SR crate 2775 lb (The D347SR7 will not be allowed)

Loudon

In 2019, Loudon, Richmond, and Thompson Speedways will be a Stock crate only race. 6400 rpm chip rule.The following engines and weight combinations will be the only allowed combo's
Straight crate 2720 lb
Ford D347SR crate 2775 lb (The D347SR7 will not be allowed)

10.9.1 Added Car Weight

No Tungsten or other exotic metals. Lead only.

a. Added weight must be securely bolted in place. Dislodged weight can not be returned to car for weighing after the race. No ballast adjustment devices permitted on car. Weight transfer devices of any type may not be activated by the driver.

10.9.2 Car Weights Post Competition

a. When cars are weighed after competition, only water, oil and gas may be added to verify total weight requirement is maintained if necessary. Left side maximum weight % must be maintained before, during, & after each race event. NO refueling allowed.
b. Wheels and tires can not be changed.
c. Post race left side weight violation penalty will be assed as follows. 1 tenth (.1%) over 58% left will be assessed an monetary fine of $200.(two hundred dollars). 2 tenths (.2%) over 58% left will be assessed monetary fine of $500 (five hundred dollars). 3 tenths (.3%) over 58% left will be disqualified from finishing order of event.
d. Post race overall total weight must remain within allowed tolerances. Any violation will result in disqualification from finishing order of event.

10.10 Engine Requirements

Engine option #1 2700 lb Gm ZZ4 engine option.
This engine option must be used in factory produced form without modification
(ACT legal sealed engine will be approved)
P/N 12551483 Stock Valve Spring.
P/N 25534354 Oil pan may be replaced with either of the following part #s: CV1106LTRB or CTR-102. or 8 quart oil pan or Moroso parts #21319, #21315, and CP106KORB pan is permitted with matching p/u assembly and champ CP106KORB permitted and utilized in factory form without modifications.
Harmonic balancer may be changed (min. 5.7" dia)
Carburetor: a Holley HP Series 4 brl. 650 Carburetor (p/n 80541-1 or -2) or an approved 600 cfm Holley .
ADD 40 lb for cam, lifter, and 1.6 rockers Change

604 Engine Option #2 2720 Crate Engine with NO Changes Factory stock
1. Fastburn In factory form without modifications 385 (P/N 12496769), Fastburn 400 (P/N 88958604).
This is a factory sealed crate engine package, complete from intake manifold, stamped steel valve covers with racing
style breathers, and 8 quart dual kick-out circle track racing oil pan. The Fast Burn 400 engine has a 1053 forged steel crankshaft, aluminum heads with 2.00"/1.55" valves, hydraulic roller lifters, (400 HP at 5500 RPM - Torque 400 @ 4500 RPM) The base engine is a Fast Burn 350ci
385 horsepower, with the following parts:
P/N 10105123 4 bolt iron block – Must Remain Stock
P/N 14088533 1053 steel crankshaft – Must Remain Stock
P/N 10108688 PM rod – Must Remain Stock
P/N 10159436 High silicon aluminum piston – Must Remain Stock. NO "Eyebrowing" the pistons for clearance
P/N 10185071 Camshaft with hydraulic roller lifters – The camshaft may NOT be changed.
P/N 12551483 Stock Valve Spring. or **P/N 12625033 blue beehive springs**
P/N 88960604 8" stock harmonic balancer or**5.7min dia harmonic balancer**
P/N 12464298 Aluminum head – Must Remain Stock. You may cut the heads .010 for clean-up. Minimum 60cc.
P/N 12496822 High rise single plane intake manifold, P/N 12366573 Aluminum dual plane (no EGR) or P/N 12496820
Aluminum dual plane (w/ EGR)– Must Remain Stock. Competitors competing with the original Fastburn 385 (intake manifold p/n 12366573 or p/n 12496820) may update to Fastburn 400 (p/n 12496822).
No balancing, grinding, machining, porting ect.

P/N 25534354 Oil pan may be replaced with either of the following part #s: CV1106LTRB or CTR-102. or 8 quart oil pan or Moroso parts #21319, #21315, and CP106KORB pan is permitted with matching p/u assembly and champ CP106KORB permitted and utilized in factory form without modifications.
Carburetor: a Holley HP Series 4 brl. 650 Carburetor (p/n 80541-1 or -2) or an approved 600 cfm Holley .
The Cam change option (ADD 50 lb for Cam, Lifter, 1.6 rocker change) will be phased out in 2019.

Engine Option #3 2720 lb Ford S347 JR
2725 Ford S347 JR Complete in factory untouched sealed form. No exceptions permitted. This is a factory RACE

engine package, Must Remain Stock .
Carburetors: a Holley HP series 4 brl. 650 carburetor (p/n 80541-1 or -2) or an approved 600 cfm. Holley carburetor.

Engine Option #4 2750 lb 2 barrel steel head (Thompson Speedway will run 2875lb 2brl)
a. Engines with cast iron heads must have a maximum static compression ratio of 10.99 to 1, as measured by the PASS Whistler. Compressions ratios exceeding 10.99 may be run with PASS approval and up to a 50 lb. weight penalty.
b. Holley 500 cfm carb, must comply with carb requirements in rule 10.13.
c. Must be a V-8 engine with a maximum displacement of 360 cubic inches. Cars with engine displacement exceeding 360 c. i. may be allowed to compete but need PASS Officials approval and carry a weight penalty.
d. No titanium or aluminum connecting rods permitted. Any length after market rod permitted.
e. Any flat tappet camshaft permitted. No mushroom type lifters permitted. Lifter bores may be bored, or re-bored and sleeved to accept Ford lifters.
g. Any dry or wet sump oil system allowed. Maximum of a five stage pump.
h. Any flat top piston permitted. Valve relief may be cut into piston. Pistons may not exceed engine compression rule. No pop-up or dish pistons. Dodge pistons can remove minimal material from top of piston to maintain 10:99 compression.

Cylinder Heads for 10.99
No porting, polishing, sand blasting, glass beading, painting, angle milling more than 2 degrees, or adding material to head permitted. GM Heads: Any current (year 2002 or older) 23 degree cast iron head allowed, except no high ports allowed. Year 2005 GM Vortec Bow-Tie heads # 25534351, 2534371 (bare castings), 25534421, & 25534431 (fully assembled) are allowed only in “as produced” condition. Valve size must remain stock (2.00 / 1.55”), only normal valve machining, & ½” max. port matching.

Ford Heads: N351, N352 (year 2002 and older). Dodge Heads: W2 castings (year 2002 or older) ANY

EXCEPTIONS TO THE CYLINDER HEAD RULES MUST BE SUBMITTED TO PASS TECH FOR APPROVAL.

a. Multi-angle valve grinding permitted.
b. Maximum intake valve size is 2.080 inches.
c. Heads with the following maximum valve sizes and stock valve dimensions can be ported and polished.
- General Motors: Intake Maximum 1.94” Exhaust Maximum 1.50” GM casting #041,291,441,461,462, & 492 (The 492 casting has to be GM #3958603, 1.94” intake and 1.50” exhaust valves)
- Chrysler 340 c.i: Intake Maximum 2.02” Exhaust Maximum 1.60”
- Chrysler 360 c.i: Intake Maximum 1.88” Exhaust Maximum 1.60”
- Ford Cleveland: Intake Maximum 2.19” Exhaust Maximum 1.71” W/P casting #4351 only
- Ford Winsor: Intake Maximum 1.84” Exhaust Maximum 1.54” Ford casting #GT40- M6049-L302
d. Bowl work allowed up to ½ inch below top of valve seat, maximum.
e. Port matching allowed up to ½ inch on intake port, maximum.
f. Polishing of combustion chambers only, permitted.
g. No reworking of exhaust ports.
h. Steel or titanium valves permitted.
i. Any valve spring permitted.

Intake Manifolds
a. Any un-altered Production aluminum or cast iron intake manifolds may be used.
b. Port matching allowed up to ½ inch maximum. No other machining allowed.
No Plastic or carbon fiber intakes or other unauthorized parts allowed
No electric fuel pumps permitted.
No aluminum engine blocks

Additional weight will be added for higher compression 13.99 max (engine option #4)
50 lb penalty for 4 barrel Holley 600 cfm option

. **Engine Option #5 2765 lb McGunegill Ford 425 LM Spec**
Mc Gunegill FORD 425 LM Spec (crate) engine in COMPLETE sealed untouched form as produced will be permitted for competition. Utilization of this option is restricted to McGunegill specs and is restricted to manufacturer rebuild. No Exceptions.
Carburetors: a Holley HP series 4 brl. 650 carburetor (p/n 80541-1 or -2) or an approved 600 cfm. Holley

carburetor.

Engine Option #6 2765 lb Ford D347 SR 2775 for -7 head version
Ford D347 SR Complete in factory untouched sealed form. No exceptions permitted. This is a factory RACE engine package, Must Remain Stock .
Carburetors: a Holley HP series 4 brl. 650 carburetor (p/n 80541-1 or -2) or an approved 600 cfm. Holley carburetor.

Engine Option #7 2775 lbs.: GM 23 Degree 9 to 1
Gm 23 degree 9-1 compression engine with use of either altered or unaltered
booster Holley #6895 or #80507 390 cfm. carburetor. . Cars utilizing Open booster carburetor option may NOT be used at tracks in excess of ½ mile or larger in length.

Engine Option #8 2775 lb 9.50 to 1 Engine Rule
a. Can Not exceed 9.5:1compression
b. Valve angle:
1. GM - 18 degrees minimum
2. Ford - 9 Degrees minimum with 4 degree valve center
3. Mopar - 12 Degrees minimum
c. Steel or Aluminum heads.
d. Steel standard production crankshaft, NO TITANIUM. Balancing allowed
e. Any cam, any steel lifter, and any rocker arms. Gear drives ok.
f. Any production steel or aluminum intake permitted. No fabricated intakes. Maximum depth of intake allowed is 4 5/8".
g. Holley 390 cfm 4bbl carburetor only. Cars utilizing Open booster carburetor option may NOT be used at tracks in excess of ½ mile or larger in length.
h. Maximum carburetor spacer/adapter/gasket thickness allowed is 2 1/8".
i. Only single hole or 4 hole adapters are allowed with NO tapered, beveled, or slant holes.

Engine Option #9 2775 lb Spec Engine
Sealed Spec Engine Complete in specified form by builder with NO modification from approved sealed engine manufacturer. Approved engine manufactures as listed: McGunegill Racing engines, Hamner Racing Engines and Progressive racing engines.

Engine Option #10 2775lb SSPE 11.5 to 1
Southern Super Parts Engine (SSPE) will be permitted as outlined in SSPE Parts list and cost without variation or modification. Pass tech limits compression to 11.5 to 1 weight penalty may be implemented for higher compression. Ask Tech for Details

Note: Any engine not listed will have to be approved by tech with a recent build sheet and dynamometer run sheet before approval and may be assessed a weight penalty accordingly

Carburetors: Holley HP series 4 barrel 390 cfm carburetor permitted. Maximum 1 inch spacer permitted. Open booster 390 carburetor permitted with the use of the governor restrictor spacer with maximum 1.200 inserts.

No cars under any motor, body, ect. weight combination will weigh less then 2700lb
No Plastic or carbon fiber intakes or other unauthorized parts allowed on any engine combination

Call tech for approval on any engine combination that is not listed in the options above
Charlie Rockwell 802-754-2822

ANY PARTS OR TECHNICAL SPECIFICATIONS NOT MENTIONED ABOVE MUST REMAIN STOCK AS PRODUCED for All Crate engines options utilized for competition. NO EXCEPTIONS unless otherwise specified in crate engine rebuild specifications

GM 400 '604' Fast Burn,ZZ4 '603', McGunegill 425 Im, Ford D347SR S347jr Engine Inspection Policy

Within the guidelines of utilizing the 'Crate'-Race engine options all competitors are subject to a zero tolerance policy of inspection and conformability to all guidelines as specified by the manufacturer.

If in the event any team is considered in question as to the productivity of performance from a 'crate' powered engine, that engine will be susceptible to the following inspection process without protest. Failure to adhere to any action taken by PASS series officials will result in immediate disqualification.

At the conclusion of any race event PASS reserves the right to require any team to remove engine in complete form and turn over possession to appropriate officials for inspection purposes to be determined by officials.

Engine will be susceptible to Dyno testing and/or engine tear down for complete inspection to determine total legality to factory produced complete form.

In the event ANY part within engine is found non-conforming, the entire engine will become the possession of PASS without claim or dispute. An additional $1,000.00 fine will be assed to violating team before next event in which said teams attempts to compete.

Teams in which opt. for the cam and rocker replacement option are limited to only replacement of Camshaft, Lifters and Rockers! NO other modifications permitted!

In the event of engine rebuild the only modifications are listed below.
Maximum overbore of .008"
Maximum Deck surfacing of block: .005"
Maximum deck surfacing of cylinder head: .010 straight only. NO angle milling permitted.
Minimum rod and main bearing size: .010" under

All other necessary parts required for rebuild are to be direct factory replacement purchased through Manufacturer and are exact OEM specified part numbered to engine utilized specification sheet and installed to factory built specs. NO EXCEPTIONS!

All crate engines are to be used in complete form as produced unless otherwise specified. From Intake manifold to oil pan. No external oiling systems permitted.

ZERO TOLERANCE!

a. After Market timing chain cover permitted.
b. After Market engine bolts are permitted.
c. Any distributor legal to PASS rules may be permitted.
d. Any valve cover set is permitted
e. Any water pump is permitted

10.13 Carburetors

a. A Holley 600 cfm model carburetor may be used on cast iron head engines using Engine Option #1.
b. Holley 500 cfm model carburetor must be used on cast iron head engines using Engine Option #2.
c. Holley 390 cfm model carburetor must be used on aluminum head 9.50 to 1 engines using Engine Option #3. open booster carburetor permitted at tracks in length of less than half mile .
d. stock 4-brl Holley carburetor (p/n 80541-1/2) for Crate Engines or any other PASS legal 650 or 600 carb.
e. 650 cfm model 80541 -1/2)carburetor may be used on ZZ4 crate engine option or any other PASS legal 650 or 600 cfm carb.
f. No polishing, grinding, or drilling holes permitted in the body of the carburetor.
g. Choke horn may be removed with a square cut, no taper or bevel may be cut into the body of the carburetor.

h. Boosters may not be changed but may be aligned. Size and shape must not be altered. Height must remain standard. The passage ways from the metering block may be enlarged to a suggested size of 0.156 inches.
i. Venturi area must not be altered in any manner. Casting ring must not be removed.
j . Base plate must not be altered in shape or size.
k. Stock butterflies must not be thinned or tapered. Idle holes may be drilled in butterflies. Screw ends may be cut even with shafts but screw heads must remain standard.
l. Throttle shaft must remain standard and must not be thinned or cut in any manner.
m. Power valved, metering blocks and floats may be altered.
o. Throttle linkage may be changed.

10.13.1 Carburetor Spacer and Gaskets

a. No alterations allowed to carburetor spacer.
b. Only a 1 piece carburetor spacer, maximum 1 inch in thickness may be installed between the intake manifold and the carburetor. 9.5 to 1 up to 2”(inch) spacer permitted. Any open or 4 hole spacer may be used, but the spacer opening must be perpendicular to the base of the carburetor with no taper or bevel. Outside configuration of the spacer must conform to the base of he carburetor. Only 2 paper gaskets (1 per side) with a maximum thickness of 0.065 inch will be permitted. Gaskets may be altered to match carburetor base openings.

10.13.2 Carburetor Jets

a. Carburetor jets must be the same type as supplied by the carburetor manufacturer.

10.14 Fuel Injection or Supercharger

a. Fuel injection or superchargers are not permitted.

10.15 Carburetor Air Cleaner and Air Filter

a. Air filter element must be a minimum of 12 inches and a maximum of 16 inches in diameter. Air shall be filtered through the element. The air filter elements may not be sprayed or soaked with any type of chemicals or liquids.
b. The air filter housing must be centered on the carburetor. No tubes, funnels or any other device which may control the flow of air is permitted inside of the air cleaner or between the air filter housing and the carburetor.
c. Air cleaners can not be removed during practice or competition.

10.16 Air Intake

a. No cowl air induction is permitted. Absolutely no air ducts or baffles permitted on or leading to the air cleaner or element.
b. Air box opening should be approx. 4 inches by 20 inches may be cut in the hood behind the carburetor air cleaner to allow fresh air to the carburetor.

10.17 Electrical System

10.17.1 Ignition

All wiring must be sealed. No unplugged wiring. All ignition boxes must be mounted on the passenger side, in plain view, and out of reach of the driver…and…all wires to the distributor must be run separately and not part of a larger loom or harness. 4. All teams must only use ONE (1) FAST/Crane Cams Ignition part# 6000-6700 (HI-6RC) and a Coil part# 730-0192 (PS92N), mounted on a tray for ease of Tech removal.
Rev dials must be pointed toward the passenger side window away from driver

a. All ignition systems must be acceptable to PASS Officials.
b. Ignition amplifier boxes and RPM limiters that are analog are allowed, but must not contain programmable, computerized, or memory circuits. MSD# 6425 and Crane# fireball HI-6
c. No magnetos or computerized systems are permitted.
d. The distributor must mount in the stock location and maintain the same firing order as a factory produced engine for the make and model car being used.
e. No crank trigger ignition systems permitted.
f. No adjustable timing controls permitted.
g. No digital RPM or telemetry readers

10.17.2 Spark Plugs

a. Any make or brand of spark plugs may be used.

10.17.3 Alternator
a. The alternator system when used must be working within specifications.

10.17.4 Starter
a. The self starter must be in working order. Gear reduction starters are acceptable. All cars must be capable of starting under their own power.

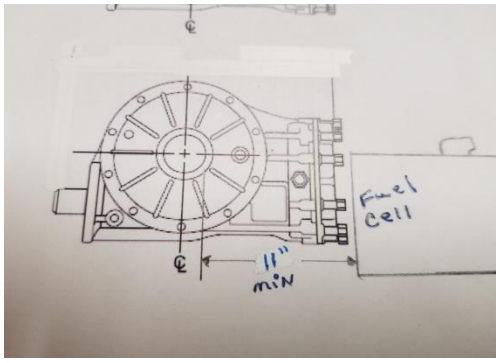
10.17.5 Battery
a. The battery may not be located within the driver's compartment. Battery must be isolated within the fuel cell area of the car. Battery must be securely mounted and covered to prevent spillage if inverted.

10.17.6 Electrical Switch Locations
a. All electrical switches must be located within the driver's reach. A labeled on/off master switch must be located within reach of the driver's side window opening and effectively kill power from the battery to the car's ignition system.

10.17.7 Accessories
a. Cars will not be permitted to carry on board computers, micro-controllers, processors, recording devices, electronic memory chips, traction control devices or digital readout gauges. Radios must be of two-way voice communication type only, independent of the car's electrical system.

10.18 Fuel Cell
a. Maximum size is 22 gallons (U.S.).
b. Cell must have a minimum ground clearance height of 8 inches from the track. Measured at ride height
c. Must have flapper/ball valve assembly in cell to prevent spillage when upset.
d. Must be enclosed in a 20 gauge metal canister magnetic steel highly recommended and installed in a safe manner. Must have 1/8" thick metal safety plate front and rear.
e. Must have a check valve in vent tube to prevent spillage. Vent line must not be excessive in length.
f. Must have a safety loop designed to protect the rear of the cell.
g. No horse shoe or "U" shaped cells.

h. Front side of cell is to be no closer than 11" to the back of the rear end tube.



10.19 Drive Train
a. No carbon fiber or titanium products allowed without PASS approval.

10.19.1 Clutches
a. Multi-disc designed for racing. Minimum 5-inch diameter clutch plates.

10.19.2 Flywheel
a. Any flywheel permitted.

Housing 10.19.3 Bell

a. Any aluminum or steel bell housing allowed.

10.19.4 Transmission

a. No “in-out” type transmissions permitted.
b. Not to exceed 4 forward gears. Must have at least 2 forward gears and 1 reverse gear in working order.
c. No automatic or semi-automatic transmissions permitted.
d. All other forward gears (except 4th or high gear) in any position shall be 1.23 or higher
e. Fourth or high gear ratio must be 1 to 1.
f. All transmissions must be approved by PASS Officials.

10.19.5 Drive Shaft

a. Drive shafts and universals must be similar in design to standard production type. Only a 1 piece steel or aluminum drive shaft permitted.
b. It is mandatory that (2) 360 degree solid steel brackets, no less than 2 inches wide and 1/4 inch thick, be placed around the drive shaft and fasten to the cross member of the car.
c. All steel drive shafts must be painted white.

10.19.6 Rear Axle

All rear ends must have ring gear to the left side of the car and pinion gear to the right side of the car. In its traditional fashion.

No right hand ring gears,

No reversing of rear end

No flipping of rear end

There will be a 50lb penalty for non conforming rear ends

a. NO electronic devices.

b. Full floating rear axles are compulsory.
c. Locked or unlocked differentials are permitted.
d. Limited slip differentials are permitted with no electronic controls.
e. Differential oil coolers are permitted.
f. Cambered rear axle housings are permitted.
g. Steel or rubberized drive plates may be used.

10.19.7 Wheels

a. Only 15-inch diameter 5 lug steel wheels with a 10-inch rim width and a reinforced center are permitted.
b. Solid heavy-duty steel lug bolts and nuts must be used.
c. Bleeder valves are permitted.

10.19.8 Tires

a. Only approved tires permitted. Approved tires are those tires purchased from PASS or an approved PASS dealer.
b. No hand grooving, buffing, grinding, and/or cutting on any area of the racing tire allowed.
c. Any competitor who, during an Event, uses or is in possession of 1 or more tires that have been altered externally or internally by unauthorized treatment is subject to a fine of not less than $500.00 and disqualification, and/or disallowance or qualifying efforts, and/or withdrawal of the opportunity to qualify for the Event, and/or suspension from future PASS Events, and /or additional penalties.
d. Any team found with any tire softener, conditioner, or any substance used to treat tires, in their possession (including trailers and haulers) during any PASS event will be disqualified from the event. Additional fines and/or penalties may be imposed including, but not limited to, suspension from future PASS events.

e. No tire warming or heating permitted. To include heating blankets, heaters, or ANY form of temperature altering methods. No exceptions.
f. No Blowers or air directional devises to include duct hoses are permitted to be directed at tires in any manner. All Blowers or ducting must be directed only to brake rotor.
No tire air blowers or ducts to tires. Break blowers are allowed but can't pull air from the ground area.

10.19.9 Tire Usage Rules

a. Competitors must start the feature race on tires used to qualify with. Any change of qualified tires must be approved by PASS Officials. When an Official detects a change from the qualifying tires, the competitor will be allowed to change back to the original tires and start the race from the rear of the field.
b. A tire can not be changed in a feature race unless it is flat. Violation of this rule will carry a 2-lap penalty. Tire MUST be cut or flat due to tire failure. Faulty bleeder is not accepted as tire failure. In the event of bleeder failure team must change bleeder and continue use of said tire for the remainder of the given event.
c. 'An extended race of over 150 laps may allow tire changes during the feature race and will be announced at the drivers meeting and printed on the Official Entry Blank for the race.
d. Additional tire usage and control guidelines may be included on the Official Entry Blank for the Event.

10.19.10 Durometer Rules

a. The only approved Durometer will be the PASS instrument.
b. Any tire under the minimum limit will be determined illegal and become the property of the PASS..
c. Any competitor purposely avoiding a PASS Official by running through the dirt, water, taking extra laps around the track, etc., will be determined to have illegal tires.
d. Any competitor found with illegal tires in the qualifying events will be disqualified and placed at the end of the feature line up if the field is not full.
e. Any competitor found with illegal tires in the feature race will be disqualified and lose all points and purse for the event.
f. Any competitor found with illegal tires a second time will be removed from the premises of the event and subsequently be suspended for a minimum of 2 races and may be subject to a minimum $1,000.00 fine.
g. All decisions by PASS Officials will be final.

10.20 Mufflers/ Exhaust

a. Exhaust MUST exit under car. Side exit exhaust is NOT permitted! AT ALL EVENTS!
b. All cars must have mufflers in "as produced condition". Howe #3002, 3006, 3010 or H-3018 are to be used. Other manufacturer built mufflers must be approved before competition and meet sound level specifications.
c. Cars not adhering to this rule or excessively loud cars may not be allowed to compete or may be assessed a weight penalty.
d. Exhaust must extend behind driver.
e. Maximum allowable noise decibel to be 100db. Due to increasing noise ordinances at many facilities in which the series competes at, PASS officials will be required to enforce noise levels as posted. Facility ordinances will determine as to whether enforcement will be limited to teams being fined or restricted from competition due to violation of maximum db. noise limitations.
f. Competitors MAY be permitted a one event reprieve (first event in competition during the season) with alternative exhaust configuration at the descression of series officials. Note: at some facilities there is no exception allowance for variance from mandated exhaust location and noise levels.

10.21 Chassis Construction

10.21.1 Center Section Components

a. Main frame rail structure of chassis, defined as the primary structure to which roll cage members, major suspension components, engine, etc., mount to, must be constructed of a mild steel shape having a minimum perimeter dimension of 10 inches. Examples: 2 x 3, 2 ½ x 2 ½ , etc. Main frame rail members should be a minimum of:
. 10 inch perimeter tubing: 0.120 inch wall thickness
. 12 inch perimeter tubing: 0.095 inch wall thickness
. 16 inch perimeter tubing: 0.083 inch wall thickness

b. Main frame rail members shall be constructed so that the side rails are located within the normal tread width of the car. Right side main frame rail may be of perimeter or straight rail design.
c. A perimeter frame chassis is defined as having left and right frame rails symmetrical (maximum 1 inch tolerance).

Frame rails must measure a minimum of 50 ½ inches and a maximum of 60 inches from outside to outside and must be a minimum of 44 inches in length.
Our rules state that the frame rails are to be a minimum of 50 ½" outside to outside and must maintain the same structural tube diameter back to the rear end tubes. You may then use 2"x2" from the rear end housing back to the rear bumper. This is a serious safety issue for our drivers in the event of a wreck and we need to have these chassis in compliance ASAP. The following penalties will be enforced at all PASS events 25lb penalty per inch under 50 ½"25lb penalty for 2x2 used in front of rear axle as frame stock

d. The left main frame rail on a straight rail chassis must measure 10 inches minimum from the left front frame rail.
g. When using an under-slung front snout on a straight rail chassis, the right main frame rail must be outside of the right front frame rail. They must not be in a straight line.

10.21.2 Front and Rear Sections

a. Front and rear frame rails must measure 10 inches around the perimeter and constructed of 0.083 inch wall thickness.
b. Rear frame section must extend beyond the rear edge of the fuel cell. The rear frame section maybe be 2" X 2" from the rear axle rearward.
c. Rear frame section may be fabricated above or below the rear axle.
d. Front and rear frame sections centerline must be located within 1 inch of the centerline of the main frame section on a perimeter chassis.
e. Rear frame section must measure a minimum of 38 inches outside to outside.

10.21.3 Roll Bars

a. A four-point roll cage structure of 1 3/4 inch outside diameter made of 0.090 inch thick molyendum or mild steel tubing is required. All cars must have an x-type member across and behind the driver.
b. Roll cage structure must be fully with minimum 1/8 inch thick gusset plates at all major tube intersections.
c. A minimum of 4 horizontal bars, 3 curved, with 6 vertical bars (2 between each horizontal bar), with steel gussets is required in the driver's door.
d. It is mandatory to have 16 gauge metal welded between door bars or a 16 gauge plate 40 inches in length and 17 inches high minimum, welded between the door bars and the driver's door.
e. The right side door shall have 3 horizontal bars, straight or curved.
f. Total height of roll cage to be 40 ½ inches from bottom of frame. Halo to be no less than 1 inch lower.
g. There must be a piece of tubing welded diagonally or perpendicular between halo and top of roll cage.
h. Minimum height of door bars on driver's side is 22 ½ inches from bottom of frame.
i. A "Petty Bar" must run between center of cage and upper right front halo.
j. Width of halo should be a minimum of 44 inches on perimeter chassis and 31 inches on straight rail chassis. Measurement is from outside to outside of tubing.
k. All roll cage installations and workmanship must be acceptable to PASS Officials.

10.22 Suspension Components

a. Front and rear suspensions may be coil spring or coil over spring type.
b. Rear trailing arms may me of any unequal length and may use a spring or shock assembly.
c. The third link may be of any length.
d. No bird cages. Rear end trailing arm mounts must be a solid fix to rear end
e. Rack and pinion steering is allowed.

10.22.1 Springs

Type of springs including height and wire diameter is optional.

10.22.2 Shocks

a. A maximum of 1 shock absorber per wheel is permitted.
b. No experimental shocks.

c. Type and location of shock absorbers is optional.

d. Maximum shock gas pressure is 300 psi.
e. No external or secondary bump or measurement devices are to be used outside of the coil parameters. Bumps and Bump springs are allowed on the coil over assembly only.

10.22.3 Sway Bars

a. Any type sway bar is allowed front or rear.

10.22.4 A-Frames

a. Independent front suspension is mandatory with articulating upper and lower control arms.
b. Lower A-frames may be stock appearing or strut arm type.
c. Upper and lower A-frames may be unequal lengths.
d. Ball joint type is optional. Mono balls are allowed.

10.22.5 Spindles

a. Steel spindles only.

10.23 Safety Equipment

a. Window nets are required in driver's window area. The window net must be securely fastened at the bottom and have a quick release fastener at one end in reach of the driver. The net must be in the latched position at all times when the car is on the track.
b. Driver must, at all times while in car, wear an approved driving suit and gloves. Suits must cover legs, arms and body of driver. Suits and gloves must be of fire resistant material.
c. Helmets must be worn at all times while operating the car. Helmets must meet or exceed the Snell 95 standard.
d. Cars must be properly supported by jack stands whenever a person is beneath it.

10.23.1 Seat Belts and Shoulder Harness

a. A quick release lap belt no less than 3 inches wide is compulsory.
b. Both ends of the lap belt must be fastened to the roll bar cage with high quality bolts not less than 3/8 inch diameter.
c. Shoulder harness must be no less than 3 inches wide and must come from behind driver's seat. It is recommended that the harness pass through a steel guide welded to the roll cage that will prevent the harness from sliding from side to side. Shoulder harness may be 2 inch wide when utilized with proper combination of Hans devise or similar head/neck restraint system.
d. A center (crotch) belt must be securely mounted to the lower seat frame at the bottom and to the lap seat belt at the top.
e. Where the belts pass through the seat edges, the belt must have a grommet installed, be rolled and/or padded to prevent cutting the belt.
f. All seat belts and shoulder harnesses must connect at the lap belt with a quick release buckle.
g. Seat belts must be dated by the manufacturer and must not be used beyond 5 years after the manufactured date.
h. It is recommended that a Hans or Hutchens type device is used.

10.23.2 Fire Control

a. A built-in on board extinguisher system is preferable. All other cars must have an adequate fire extinguisher safely mounted within the drivers reach. Tape is not acceptable as the method of mounting.

10.23.3 Radios

a. A minimum of (2) two-way radios are required per car with communication between the driver and a crew member.
b. All teams must have 1 scanner programmed to receive the PASS race control frequency and must have a crew member monitoring this channel at all times during every PASS event. This crew member must be in a

position to communicate directions to the driver via the two-way radios referred to in Section 10.23.3.a.

10.24 Lettering and Numbering

a. Car numbers must be a minimum of 18 inches high and 3 inches wide. Numbers shall be placed in contrasting colors to the car on both doors and roof. No reflective chrome, gold, or prism numbers allowed. Roof numbers must be visible as read from the grandstand side of the car.
b. The car number must appear in 6-inch high numbers in the uppermost corner of the windshield on the passenger side and also on the right rear taillight cover.
c. All cars must display PASS promotional stickers in proper assigned placement location. To include PASS windshield sticker centered on upper windshield as well as contingency sponsor stickers to be located on both front fender areas as indicated by tour guidelines. 10% of event winnings will be deducted from teams that do not display proper promotional stickers in approved and specified assigned location during event.
d. Any signage deemed misappropriate by the PASS must be removed before car is allowed on the racetrack.
e. Car number must be approved by the PASS. Numbers for Tour drivers from the previous season will be held for renewal until January 1 of each year. New numbers will be assigned on an available basis. Car number application forms are available from the PASS.

10.25 Illegal Parts

a. Any part found illegal will be confiscated and become the property of the PASS.
b. Any competitor found to have an illegal part will not be allowed to compete in any PASS event until that part is surrendered to PASS series officials.