

# 2020 SCOTTIE FRAZIER'S 2 TO GO FLYING TIGERS DIVISION RULES

CAR MUST HAVE A PAID RIVERSIDE SPEEDWAY REGISTRATION

- A.Competing Models 1. Model year 1986 – 2007\*. Approved model cars: Buick:Century LeSabre Somerset Regal Chevrolet: Celebrity Lumina Monte Carlo Chrysler: LeBaron Dodge: Intrepid Ford: Taurus Thunderbird Pontiac: 6000 Grand Am Grand Prix Oldsmobile: Cutlass Ciera
- 2. Model Year: 1970-1979 Chevy Nova & 1967-1981 2nd Gen Camaro
  - 2.1 Left rear jacking bolt only allowed.
  - 2.2 No mandated spring rule.
  - 2.3 G.M. rear axle allowed with mandatory Moser safety axles.
  - 2.4 Aftermarket brakes are allowed.
  - 2.5 Max width Nova 62.5- Max width Camaro 64.5
  - 2.6 There will be 25 pounds per inch over 60.5 inches will be added to total weight.

ALL OTHER RULES REVERT TO THE 2020 TIGER SPORTSMAN RULES

3. Frames: ALL TIGER SPORTSMANs must run GM 108.1

wheelbase metric frames with Chevrolet 350 CID motors **ONLY**. Eligible bodies listed in #1 above.

4. Bodies:

• Five Star fiberglass Sportsman short track body optional. ONLY PACKAGE "A" APPROVED FOR THIS OPTION.

Options: Monte Carlo #639-112

Grand Prix #339-112 \*

# \* Package #339112 may be used optionally with

# Ford Taurus, Dodge Intrepid nose and tail.

• The Five Star '88 Monte Carlo Body is an approved aftermarket body option.

#### • The ARbodies 88 Monte Carlo Steel Re-skin Kit – PN 17088S-S

(includes: left & right fenders, left & right doors, left & right quarter panels, white nose and white rear bumper cover) is an approved body option.

- ARbodies Universal Extra Wide Composite Hood PN TA760 is also approved.
- Dura Flex body option: Steel Body ONLY OR Aluminum Monte Carlo, Malibu Camaro, Caprice for metric chassis allowed Contact: Fastone Motorsports – 802-223-5888 or NES Enterprise – 802-505-1442
- **All** glass except windshield removed. Windshield must be replaced with Lexan, supported by one upright brace in center.

# >ALL RIVERSIDE SPEEDWAY COMPETITORS WILL BE ALLOWED TO RUN A S2 FIVE STAR BODY FOR THE 2020 SEASON.

#### B. Safety/Design

Full cage mandatory. Specifications for Perimeter Roll cage: Maximum offset allowed
1" from center line of tread width.

Material to be used must be DOM or seamless, .090 minimum wall steel tubing. All cars required to have a 4 point or main structure of the roll cage must be symmetrical in all directions. Minimum length for door bars is 42 inches. Total height of roll cage to be 40-1/2" from bottom of frame. Halo to be no less than 1" lower. Width of halo to be no less than 46 inches outside to outside of tubing. Dash bar required, along with an X-type member across and behind driver. One piece of tubing running diagonally or perpendicular between halo in top of cage centered is required. Four curved horizontal door bars on driver's side with minimum of eight (8) inches to edge of seat from inside of door bars required. Minimum height of door bars 22-1/2 inches from bottom of frame. Passenger side three curved door bars with minimum 66 inches between driver's side door bars and passenger side door bars, outside to outside or may use "X" bar. A so-called "Petty bar" must run from center of cage to upper right front halo. Require 1/8" minimum steel plating of driver door bars.

# Main frame rails and clips may not be pierced or drilled or otherwise altered for purpose of reducing weight.

- 2. Pipe size used for roll cage must be minimum 1-3/4 inches O.D., with thickness minimum .095.
- 3. Bumper brackets must be in stock locations. All bumpers must be mounted by shear

pins.

4. Refer to diagram (page 11) for roll cage and front hoop construction/front and rear

hoops allowed. Mandatory 4 curved bars in driver's door, minimum 3 bars or "X" bar in passenger door constructed of .095 1-3/4"O.D. tubing. All roll cage tubing must be minimum .095".

- 5. Spoilers allowed maximum 3" height and maximum width of trunk lid only.
- 6. Interior Detail:

*a.* A full width dash is required in all cars. Vertical surface of dash must project in a single plane across the car. Top horizontal plane of the dash should carry forward to the firewall and enclose entire area beneath windshield. Instruments must be neatly mounted to vertical plane of dash panel.

b. Interior of car must be completely enclosed in respect to engine compartment,

track surface, tires and rear fuel cell compartment. Interior panels must be minimum of .020 inch thickness of steel.

*c.* Right side floor pan may be level with transmission height or drop back down level with floor on driver's side (see diagram page 12).

*d.* Only one 3 inch spot mirror inside car approved. Cannot extend outside of the windshield "A" pillar. No side mirrors.

e. No rub rails allowed outside the car.

### C. Engine

1. All Tigers will run the 602 Sealed GM crate motor which is available from RPM Racing Engines in Georgia, Vermont and from Butler & MacMaster in Hallowell, ME.

For pricing and ordering information for a Riverside Speedway TIGER SPORTSMAN spec engine, please contact RPM Racings Engines at 802-524-7406 or Redline Performance Engines at 207-418-1695.

# The 602 flywheel allowed is 15 lbs. G.M. part# 14088646 or equivalent steel type allowed. Stock type diaphragm clutch only made of steel, one disc.

2. Engine Placement

a. Engine set-back will be measured from the front of cross member to centerline of fuel pump and is 2-1/2 inches.

b. The centering placement of motor will be measured from fuel pump mount on engine block to the right front inside of frame rail and will measure 6-3/4 inches.

c. The engine height will be checked from a straight edge on top of right front frame rail

#### to the top edge of roll pin on fuel pump.

3. Carburetor – 4412 Holley. No carb hat air deflection devices allowed. Top of air cleaner must be metal or aluminum.

4. Alternators must be used and in working order, and run off front of motor.

#### 5. Electric fans allowed.

#### 6. Aftermarket motor mounts recommended with mid motor mount.

7. OEM starters or aftermarket high torque starters allowed.

#### 8. Exhaust

- a. OPTION 1: Stock cast iron manifold.
  - i. If running the stock cast iron manifold, you will use the current 1.435 plate provided by RPM Engines.
- b. OPTION 2: A header of your choice but cannot exceed \$300 book price. The track has the option of buying your header at the cost of \$350.00 at any time.
  - i. When running headers, you will run a restrictor plate part number *TO BE DETERMINED* by RPM Engines.
- c. Must be 3 inch O.D. maximum exhaust pipe extending from manifold/header to outlet.
- d. No balance tubes or H pipes. No interconnecting exhaust tubes.
- e. Exhaust must extend beyond driver's compartment.

#### **D. Transmission**

1. Transmissions must be stock standard 3 speed, no automatic allowed.

**Steel type bell housing mandatory**. Mandatory bell housing must remain 360<sup>0</sup> and shall not be altered, except for inspection hole not to exceed 2" in diameter to be drilled in bottom of bell housing.

2. Standard stock clutch (10.4") and flywheel assembly only. One clutch, one

diaphragm-type pressure plate only allowed. No lightening of pressure plate. No aluminum pressure plates allowed – must be completely steel. Inspection hole must be drilled in bottom of bell housing unit for inspection viewing. Flywheel must weigh minimum of 20 pounds. Hydraulic throw-out bearings allowed.

1. Drive shafts must be O.E.M. steel only and painted white. No aluminum drive shafts

allowed.

2. Transmission cross member NOT required, however rubber or solid mount for transmission IS required.

#### E. Suspension

 Any minimum 5" coil spring allowed on coil spring car. No spring rubbers will be allowed. Front "A" arms must be stock or aftermarket option upper steel tubular control arm: UB Machine part #15-0809-5R (right) UB Machine part #15-0829-6L (left)
OR Port City part #100-06-800RHS (right) Port City Part #100-06-820LHS (left)

And shall not be altered in any way except, urethane bushings will be allowed in front end only. Rear trailing arms must be mounted in urethane or rubber. Following rear trailing arms are allowed: stock or DCA Race Fab part #17811 Upper, #17812 Lower. Reinforcing allowed. One shock per wheel made of steel non-adjustable. Maximum one-inch sway bar. Stock sway bar with adjustable links will be allowed. Aftermarket sway bar with attaching "I" bolts will also be allowed, **AND MUST BE MOUNTED IN STOCK LOCATION.** No heim joints allowed. Four (4) jacking bolts will be allowed. Right front hub mandatory safety or aftermarket. The Pro Shock WB **steel bodied** series is **mandatory**.**Stock GM unaltered front spindles only**. *Stock Monte Carlo GM Pitman arm only*.

ALL steering I.E. Ball joints, Tie rods, Idler arm, Center link MUST be **STOCK** OEM replacement parts for GM 108.1 wheelbase metric frame.

The Tiger shock rule reads as follows:

"The Pro Shock WB STEEL BODIED series is MANDATORY and must be mounted at half travel +/- 1 inch at 6" ride height. This rule will be checked and any car not in compliance will not be allowed to compete until 100% fixed, *measured with driver in car.* A violation after any competition race may result in loss of points, purse, suspension and/or other penalties". Stock manufactured rotors and calipers: Aftermarket (Howe/Wilwood, etc.) replacements that are lighter with larger piston which were approved in recent years will *NOT* be allowed.

# 2. Minimum ride height of 6" will be strictly enforced, measured with driver in car.

3. Frames must remain stock metric frame with no altering allowed except where rules permit. Stock rails over rear end must remain to at centerline of rear end. Springs must be

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mounted in stock upright position, mounted on top of housing tubes, to be positioned center of stock rails as stock. Original spring cars can be removed but springs must remain 34 inches apart center to center of jacking bolts centered between frame rails. Stock control arms must be used on stock frame mounts for rear end. Stock steering boxes only. Aftermarket stock mounted steering boxes allowed. No steering quickeners. No spring rubbers allowed.

- 4. Any STOCK steel racing replacement steering linkage is allowed.
- 5. No heim joints allowed.
- 6. Spindles must remain stock and match left to right.
- Maximum left front camber allowed +2.5<sup>0</sup> degrees of camber, measured with Riverside Speedway gauge, *with driver in car*.
- 8. No suspension limited travel devices allowed stock or not, unless noted in rulebook.

9. Suspension & steering bushings will not be altered in any way from the stock original intended use of the bushing. Examples of alteration will include but are not limited to: Chemical treatment, heat treatment, weakening of the bushing by means other than normal racing wear.

#### F. Tires

1. **TRACK TIRE ONLY** allowed. All four tires must be RIVERSIDE SPEEDWAY Approved. 8 inch American Racer on 7inch wheel.

2. Riverside tire rule for TIGERS: Will be allowed 6 tires first race. Every other Tiger race at Riverside, will be an optional 1 tire buy (If you miss a "tire buy" night, you can not buy the next week). Tire must be run night of purchase.

3. **NO TIRE SOFTENER ALLOWED**. Chemical treating of tires WILL NOT BE allowed. No shaving of tires allowed in TIGER SPORTSMAN division. **TIRES WILL BE DUROMETERED**.

4. Questionable tires, or tires not meeting above criteria as determined by officials, may be confiscated by officials and could result in disqualification and/or other penalties.

- 5. 5 lug 15" x 7" aftermarket race wheels **only** with equal offset from left side to right side will be used. No bleed-offs allowed.
- 6. Maximum tread width in front and rear 60.5 inches. Wheel spacers may be used but must be

7 UPDATED 2/3/20 equal left to right. Legal measurement taken with official RIVERSIDE SPEEDWAY tech gauge only.

7. Fenders may be cut for tire clearance. Determination will be what the technical inspector feels is REASONABLE. There will be no argument. If in doubt, don't cut..

## G. Rear Ends

- 1. Open or locked rear end allowed. Locked rear end must use Coleman part #SP-801-28 (28 spline) or #SP-802-31 (31 spline) ONLY. Rear disc brake mandatory. Brake bias device allowed. (Aftermarket brackets allowed – *NO slotting or centric bolts allowed on rear end mounts, or trailing arms, only one mounting point allowed,* stock manufacturer's rotors, calipers, etc. ONLY). No cambered rear ends allowed. Must be driven with solid flange drive plates. Floater type rear ends are recommended but not mandatory. If running non floating axles, they must be racing axles. No aluminum tubes, no titanium or gun drilled axles and no aluminum center sections allowed. *Rearend must be mounted center of rear frame rails.*
- 2. Gears with a ratio between and including 3.55 and 5.19 will NOT be allowed. Maximum final drive ratio is 6.00.

# H. Fuel Cells

 Fuel cell height must be 12" from ground to bottom of mandatory steel box housing can, must be safely secured in the trunk, horizontally centered between frame rails. All cars will have a minimum 15 gallon, maximum 22 gallon fuel cell MANDATORY, and a check valve in vent line is mandatory. Fuel cell must be enclosed in 20 gauge steel container.

# I. Safety Equipment

1. All cars must have a minimum of a 5 point quick release harness. A minimum 2" shoulder belt when going over a head and neck restraint. Stock passenger seat belts and harness not allowed. All seat belts must be bolted (NOT spot-welded) to roll cage.

- Aluminum racing seat is mandatory. Seat must appear as close to stock position as possible, securely fastened (bolted, not tack welded). (see diagram page 13 for installation instructions).
- 3. There **MUST BE** a horizontal bar which attaches behind seat to prevent it from collapsing backward. A support for headrest or seatback extending to support back of head is mandatory.

- 4. An approved driver's window screen mandatory. Required seat belt type latch. Must be attached at top and bottom front by single seat belt locking device and 3/8<sup>th</sup> steel rod top and bottom, *or spring lock type allowed*.
- 5. It is mandatory that a fire extinguisher with working gauge be attached to the car interior, on driver's right side crossbar. Must be within reach of driver and accessible to safety crews from both left and right side, with a quick release. No taping allowed.
- 6. **All cars must have a safety cut-off switch** on driver's right side cross bar. Must be within reach of driver and accessible to safety crews from both left and right side.
- Driver's fire retardant suits, gloves, and shoes are Mandatory. The following are suggestions to aid in your safety: goggles, fire retardant socks, undergarments, racing type helmets – DOT or SNELL approved.

# 8. HEAD AND NECK RESTRAINT MANDATORY (MINIMUM OF A HORSE COLLAR TYPE)

Recommended a Hans or Hutchins style restraint.

#### J. Height/Weight

- 1. **Minimum height** lowest point 6", measured with driver in car, including ALL body panels and nose.
- 2. Minimum weight ALL: 3,000 lbs.
- 3. Cars must weigh approved weights after all qualifying heats. Cars must weigh minimum 3000 lbs. at start of all qualifying and feature events. After qualifying, all weights must be minimum 3000 lbs.
- 4. The following allowances will apply in post race tech inspections. Scheduled: 40 lap event: 25 lbs. tolerance 75 lap event: 45 lbs. tolerance 100 lap event: 60 lbs. tolerance

#### Post race fuel weights may be adjusted if necessary with notification at driver's meeting.

5. Weight may be added (lead bars must be 5 lbs. minimum and bolted securely to frame rails and may not be concealed). All weight (bolt-on) must be located ahead of centerline of rear

axle and above or on inside of frame rails. No weight may be hung beyond the width or below the original factory frame rails. All lead must be painted white, with car # painted in contrasting color. Bolts must pass through lead, and must be secured with properly sized bolt and nut. No pinch bolts allowed.

6. Maximum **55.0%** left side weight rule (*55.0%* **ABSOLUTE**).

#### K. Miscellaneous

- 1. **All brakes** must be in working order. Rotors must be minimum 1" thickness for front rotors and minimum <sup>3</sup>/<sub>4</sub>" thickness for rear rotors.
- 2. **Hood hinges and trunk hinges are mandatory**. Minimum three fast release hood pins must be in hood and two trunk pins required.
- 3. Drive shaft must be painted white with safety loops.
- 4. No two-way radios allowed. A RACECEIVER is MANDATORY
- 5. Car must have a paid Riverside Speedway Registration.
- 6. Battery must be housed and mounted securely behind driver's seat, but remain outside of driver's compartment, and cannot be mounted beyond center line of rear axle.
- 7. Entire front fenders and vertical sides of nose panels must be free for

Riverside Speedway participating contingency award companies decals. Competitors wishing to participate in purse and point fund payouts MUST maintain all Riverside Speedway required decals in assigned positions throughout the race season. 8. A Race Receiver is mandatory to race at Riverside Speedway.

#### L. Numbers

- A. 1. Numbers will be assigned on the driver's license.
  - 2. All registered and /or assigned numbers MUST also have their registered STATE on both doors and roof of car.
- 3. Numbers will be at least 18 inches high and three inches wide NEATLY lettered. It is recommended that all numbers be as large as possible to facilitate scoring. Numbers must be in contrast to car body color. There will be numbers on each side of the car. There will be a number on the roof lettered to be readable from the scoring booth (on the right hand side of the car). *A block*

10 UPDATED 2/3/20 style number is REQUIRED on right (passenger side) front windshield to read head-on for scoring and to aid in the line-up. Metallic numbers are not allowed.

IT IS THE RESPONSIBILITY OF THE COMPETITOR TO OBTAIN AND BECOME FAMILIAR WITH THE CURRENT RULES PERTAINING TO THE DIVISION IN WHICH HE/SHE CHOOSES TO PARTICIPATE.

ANY ITEM NOT COVERED IN THE RIVERSIDE SPEEDWAY RULES SECTION MUST BE STOCK OR APPROVED IN WRITING BY RIVERSIDE SPEEDWAY OFFICE. IF ANY ITEM BEING CONSIDERED BY COMPETITOR IN THIS DIVISION IS NOT ADDRESSED IN THESE RULES, COMPETITOR IS REQUIRED TO CONTACT RIVERSIDE SPEEDWAY FOR A JUDGEMENT AS TO ACCEPTABILITY.

## **Disclaimer:**

The rules and/or regulations set forth herein are designed to provide for the orderly conduct of racing events and to establish minimum acceptable requirements for such events. These rules shall govern the condition of all events, and by participating in these events all participants are deemed to have obtained, read, and understood a copy of the current rules, and complied with these rules. NO EXPRESS OR IMPLIED WARRANTY OF SAFETY SHALL RESULT FROM PUBLICATION OF OR COMPLIANCE WITH THESE RULES AND/OR REGULATIONS. They are intended as a guide for the conduct of the sport and are in no way a guarantee against injury or death to a participant, spectator, or official.

EIRI 112118



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# **Fuel Cell Protector**



side view



back view



**Basic Seat Installation** 



**FIGURE 2** 

Recommended installation for seat / belts -

1) Anti-submarine belt should be anchored behind the chest line.

2) Seat belts anchored apart, the width of driver, at an angle of 45 degrees to the floor of the car.

3) Anchor shoulder straps at a point four inches below top of shoulder.

4) Seat belt anchor should be positioned 2-1/2" forward of the driver's extended back line. All mounting brackets should be attached directly to the frame or chassis of car, and installed to limit the driver's body travel both upward and forward. DO NOT MOUNT TO THE SHEET METAL FLOORBOARD.



#### FIGURE 3 & 4

Mounting brackets should be installed at an angle that is compatible with the direction of pull on the webbing under full load.

Minimum specification for bolts and washers to attach the seat belts, harnesses and antisubmarine belt hardware are Grade 8.

**TIGER SPORTSMAN Transponder Mounting Locations** The transponder must be mounted in compliance with the diagrams provided below. It must be mounted on a bracket inside frame rails. The center of the transponder must be twelve (12) inches back from the rear edge of the rear end tube (see diagram #1). Also the bottom most part of the transponder should not be below the bottom most part of frame. Transponder must be mounted in a direct horizontal plane (see diagram #2) to the ground with label side down and lights pointing towards the front or rear of the car. The clearance from the racetrack to the bottom of the transponder should be as close to a maximum of twelve (12) inches as possible.







**NOTE:** Permanent Hardwired Transponders are available for purchase and are mounted in the same orientation and position as the rentals. Rental transponders must be returned after each event. Any mounting questions should be directed as with any other rules question to Mike Humphrey 207-432-7714.

#### 2020 TIGER SPORTSMAN SPEC MOTOR REGISTRATION

# ALL COMPETITORS USING A SPEC ENGINE TO COMPETE IN ANY RIVERSIDE SPEEDWAY EVENT MUST COMPLETE THE FOLLOWING AGREEMENT:

	Engine Serial Number – (stamped on block, passenger side in front of head)				
Crate Engine #1_		Seal #	Seal #	_Seal #	
Engine Builder _					

By registering and signing this agreement, you will be allowed to compete and receive prize money and points at Riverside Speedway-sanctioned events. There will be NO prize money or points issued without registering spec engine with the Riverside Speedway Office prior to competing. AGREEMENT:

1. I agree to the policies regarding the TIGER SPORTSMAN Spec engine program, as outlined in the Riverside rules and regulations, procedural manual, this registration, or any other requirements which might be established.

2. I understand that the Riverside Speedway Spec Engines are not to be tampered with. Any unauthorized breaking of the seals or unauthorized freshening or altering in any way is a violation of the Riverside Speedway rules.

3. I understand that by registering my spec engine(s) and using it/them to compete in any Riverside Speedwaysanctioned event, I, or my assigned driver(s) are subject to any and all penalties which might be imposed from time to time by the Riverside Speedway organization.

4. I agree to abide by the Riverside Speedway policy that a spec motor may be confiscated for inspection at any time. If the integrity of the said motor is not fully in compliance with the Riverside Speedway rules and regulations, I further understand that I am subject to penalties which may be imposed by Riverside Speedway, and my privilege to compete may be forfeited

5. Failure to comply with the demand of the Riverside Speedway Official in Charge to confiscate spec motor for inspection purposes will result in suspension of all privileges for competitor(s) of sealed motor(s) to compete at any Riverside Speedway events for up to one year. Other penalties may be issued. Team will be responsible to place motor in truck or trailer of Riverside Speedway choice for transport to builder inspection facility. Cost of inspection and delivery will be borne by Riverside Speedway if found legal, and all costs will be the responsibility of competitor if found illegal.

I understand and agree to the terms and conditions as outlined above.

Spec Engine Owner		Spec Engine Driver	_Spec Engine Driver		
Witness	Date	Witness	Date		