TECHNICAL BULLETIN

NASCAR

NWMT26-2-11.16.26

TO: ALL NASCAR WHELEN MODIFIED TOUR CAR OWNERS, CREW CHIEFS AND DRIVERS:

Effective January 1, 2027 – The following are amendments to the 2027 NASCAR Whelen Modified Tour Rule Book:

NOTICE: All NASCAR Rule Books and Technical Bulletins may be accessed by any licensed NASCAR Member by visiting www.NASCARMembers.com.

SECTION 20D
NASCAR
WHELEN MODIFIED TOUR

Open to NASCAR-approved automobile manufacturers provided they comply with, and adhere to, specifications as outlined for this Series.

NOTICE

ALL MODEL, ENGINE OR EQUIPMENT CHANGES OR MODIFICATIONS NOT SPECIFICALLY ADDRESSED IN THIS RULE BOOK BY NASCAR MUST BE SUBMITTED, IN A COMPLETED FORM/ASSEMBLY, TO NASCAR FOR CONSIDERATION OF APPROVAL ON OR PRIOR TO SEPTEMBER 3, 2027, UNLESS OTHERWISE AUTHORIZED BY NASCAR, TO BE CONSIDERED FOR COMPETITION FOR THE 2028 SEASON. THE APPLICANT WILL BE NOTIFIED OF APPROVAL OR REJECTION FROM NASCAR. RACE EQUIPMENT WILL NOT BE CONSIDERED AS HAVING BEEN APPROVED BY REASON OF HAVING PASSED THROUGH INSPECTION AT ANY TIME OR ANY NUMBER OF TIMES UNOBSERVED OR UNDETECTED. ANY RACE EQUIPMENT WHICH DOES NOT CONFORM TO SPECIFICATIONS OR TOLERANCES CONTAINED IN THE 2027 NASCAR RULE BOOK, OR IS NOT OTHERWISE APPROVED BY NASCAR, MAY NOT BE USED IN NASCAR COMPETITION IN 2027. ALL SUBMITTED RACE EQUIPMENT MUST BE ACCOMPANIED BY COMPUTER AIDED DESIGN (CAD) FILES AND/OR MECHANICAL DRAWINGS AND REQUISITE FEE AS DETERMINED BY NASCAR.

20D - 1.3 Approved Competition Chassis Manufacturers
2027 Racing Season

The following are the only approved manufacturers for competition in the NASCAR Whelen Modified Tour in **2027**:

APPROVED CHASSIS MANUFACTURERS

APEX RACE CARS
BRE CHASSIS
CHASSIS DYNAMICS
FNO RACE CARS
FURY RACE CARS
LFR CHASSIS
MEADE CHASSIS
PSR PRODUCTS
RACE WORKS
SPAFCO RACE CHASSIS
TROYER RACE CARS
2 KWIK CHASSIS

OTHER APPROVED CHASSIS MANUFACTURERS

Other chassis manufacturers may be selected when available providing they conform to the specifications as set forth within the current Rule Book and meet the spirit and intent of competitive racing as currently evidenced in NASCAR Whelen Modified Tour racing.

20D - 3.1 Front Nose Panel/Air Dam

(Language removed) The front nose panel and air dam must not extend past the front edge of the front bumper and acceptable to NASCAR Officials. **The horizontal piece on the front of the nose/bellypan must not exceed two (2) inches in length.** The nose panel and air dam must not extend past the outside edge of the front frame rails. All support brackets must be mounted to the rear of the air dam. Horizontal or flat air deflectors must not extend past the outer edges of the front nose panel side walls.

20D - 3.2.1 Windshield

A. A single one-piece flat 1/4 inch thick clear polycarbonate windshield must be installed on the driver's side. The use of the polycarbonate laminated windshield is highly recommended. If the laminated windshield is used it must be a minimum of 1/4 inch thick.

B. The windshield must be mounted flush to the left side “A” post, the front edge of the roof panel and at the cowl or dash panel. The windshield must cover the area from the left side “A” post to the center windshield bar (#4A) and from the front edge of the roof panel to the cowl or dash panel. The windshield must be mounted using a minimum of three (3), evenly spaced, non-winged type quick release fasteners on each of the following, the left side “A” post, the front edge of the roof panel, the cowl or dash panel and the center windshield bar (#4A). Tabs welded to the center windshield bar (#4A) will be permitted. Hose clamps or tie wraps will not be permitted.

C. A complete steel windshield screen (with maximum openings of one (1) inch by two (2) inches) must be installed in the right side of the windshield opening. The windshield screen must cover the right side windshield opening from the center windshield bar (#4A)

to the right side front roll bar leg (#2B) and from the front of roof bar (#3), at the top, down to the cowl or dash panel. The windshield screen must be mounted using only positive, non-winged type quick release fasteners. Tabs welded to the center windshield bar (#4A) and front roll bar leg (#2B), will be permitted.

D. Decals will not be permitted on the windshield**, except as outlined in 20D – 3.11 Identification/Marking, B, 9.**

E. Remains the same.

20D - 3.2.4 Rear Vertical Panel

All vehicles must be equipped with a solid rear vertical body panel. The rear vertical body panel must extend **downward towards** the top of the frame and **must** have **a minimum 1 inch to** maximum 1-1/2 inch lip on the bottom edge. **The rear vertical panel must not be higher than the top of the rear quarter panels. The lower edge of the rear vertical panel must not be more than one (1) inch above the top of the rear bumper.**

Streamlining or accents, outside of what is approved by the Series Director, are not permitted.

20D - 3.6 Quarter Panels

Quarter panels must be acceptable to NASCAR Officials and made of magnetic sheet steel or aluminum (if aluminum is used it must be a minimum 0.040 inch thick) and meet the following minimum requirements:

A. The top of the quarter panels and door panels must maintain the same degree of rake from the front windshield “A” post to the rear vertical body panel on both the left side and right side.

B. All vehicles must have rear wheel openings on the right side a minimum of 11 inches and a maximum of 14 inches radius measured from the center of the rear axle housing.

C. The minimum size for any quarter window opening will be nine (9) inches high by 14 inches wide. If a “B” post is used on the rear roof quarter panel, the rear roof quarter panel must have the minimum quarter window opening. If a “B” post is not used, the leading edge of the rear roof quarter panel window opening must be located a maximum of 12 inches forward of the center of the rear axle housing. All quarter window openings and their location must be acceptable to NASCAR Officials.

D. The lower edge of the rear roof quarter window panel when measured at any point from the leading edge to the trailing edge must not be more than 2-1/2 inches inward from the upper edge of the rear quarter panel on both the left side and right side. The rear roof quarter window panel must remain parallel with the upper edge of the rear quarter panel on both the left side and right side.

E. A minimum distance of 34 inches (measured any place at the rear of the quarter panels) and a maximum distance of 42 inches measured from the center of the rear axle to the rear vertical panel of the body will be permitted. Both the right and left side rear quarter panels must be equal in length. A minimum distance of 49 inches and a maximum distance of 56 inches will be permitted when measured across the body at the top of the door panels at the front of the rear wheel openings. A minimum distance of 55 inches and a maximum distance of 60 inches will be permitted when measured at the bottom of the door panels at the front of the rear wheel openings. A minimum distance

of 58 inches and a maximum distance of 60 inches will be permitted between the outer edges of the quarter panels measured at the rear bumper height. The bottom edge of the left side and right side quarter panels must not be located inboard of the top edge.

F. The height of the rear quarter panels when measured from the ground to the top of the rear quarter panel at the spoiler mounting location must be a minimum of 31-1/2 inches and a maximum of 35 inches.

G. The front lower edge of the rear quarter panel behind the rear wheels must not be higher than the lower edge of the rear corner rail bar. The rear lower edge of the rear quarter panel must not be higher than the lower edge of the rear vertical body panel. The lower edge of the rear quarter panels must not have a ground clearance of less than 7-1/2 inches at any point behind the rear wheels.

H. The rear vertical body panel located between the quarter panels must maintain a minimum of 31-1/2 inches and a maximum of 35 inches when measured from the ground to the top of the panel at the rear spoiler mounting point. The panel must be solid with no open holes and be mounted flush at the rear of the quarter panels. The **rear vertical** panel must not be higher than the top of the rear quarter panels. The lower edge of the rear **vertical** panel must not be more than one (1) inch above the top of the rear bumper **(language removed)**.

I. Remains the same.

20D - 3.8 Hood / Roof

A. All vehicles must be equipped with a hood manufactured from a single piece of metal or fiberglass and be acceptable to NASCAR Officials.

B. The hood must be manufactured so that it will completely cover the engine compartment from the left side to the right side, turn down a minimum of four (4) inches on each side, and cover (if used) the engine side panels. Only openings for the carburetor air filter housing, air filter and the distributor will be permitted. Holes for cooling the carburetor or engine will not be permitted. No portion of the hood may be higher than the bottom of the carburetor air filter housing and air filter. Hoods must be fastened with positive pin fasteners evenly spaced across the front and rear.

C. Engine cover side panels will be permitted. Louvers will be permitted.

D. The roof panel must be from an approved manufacturer and be made of magnetic steel **or composite blend. When using a composite blend roof, the interior side of the roof panel cannot be painted, and the manufacturer's tag must remain as supplied.** All roof panels and their installation must be acceptable to NASCAR Officials. Unless otherwise authorized, the following are the only roof panels approved for competition:

MANUFACTURER	PART NUMBER
PTM Corporation	NMT-111
Five Star	**34301-51012-W**
	34301-51012-B

E. Roof support posts must remain stock appearing and maintain the original manufacturers configuration. All "A" posts must maintain a maximum width of 3-3/4 inches from the top mounting point to the bottom mounting point**, the entire height of**

the "A" post. The side of the "A" post **where it fastens to the door** must maintain a maximum length of 18 inches (including any portion of the panel that is recessed into the hood). The rear "C" post must be mounted to the rear quarter panels and maintain a minimum width of 48 inches. All roof panels must be installed in a manner and a position that is acceptable to NASCAR Officials. The front of the roof must be secured in three (3) places – one (1) in the center, one (1) on the left side and one (1) on the right side. The rear of the roof must be secured in two (2) places – one (1) on the left side of the roof and one (1) on the right side of the roof. **All roofs must be installed using non-winged type dzus fasteners with a large one (1) inch diameter head.**

F – I. Remain the same.

20D - 3.10 Bumpers / Side Rails

Front bumpers, rear bumpers, side rails and rear corner rails must be installed at all times during competition. At the discretion of the Series Director any bumper, side rail or corner rail that has been damaged or flattened and/or is not functional during an Event, may be required to pit and make the necessary repairs before returning to competition.

The bumpers, side rails and corner rails must be acceptable to NASCAR Officials and meet the following minimum requirements:

A. Front bumpers must be made of two (2) pieces of 1-1/2 inches minimum to 1-3/4 inches maximum round magnetic steel tubing **and must be a minimum thickness of .083 inch thick.** The upper and lower front bumper tubing must be six (6) inches apart when measured center to center with a minimum of four (4) vertical connectors. Two (2) vertical connectors must be welded in the center of the radiused corners with the remaining two (2) spaced between the corner uprights. The front bumper must be convex in shape with rounded corners and mounted at the front frame rails at spindle height. The maximum width of the front bumper must not exceed more than two (2) inches per side of the front frame rails. The maximum distance from the center of the front spindle to the front of the front bumper must not be less than 30 inches and not more than 32 inches. **The front bumper must be attached using four (4) high-quality 3/8 inch minimum solid magnetic steel bolts.**

B. Rear bumpers must be made from an I-beam extruded from aluminum. The width, when measured across the rear of the vehicle must be a minimum of 48 inches and a maximum of 50 inches and be mounted on centerline of the rear sub-frame rails plus or minus (+/-) one (1) inch. Each end of the rear bumper (from the mounting side) must be cut square and capped with a minimum 0.125 inch thick aluminum. All bumper caps must be welded and sharp edges must be filed smooth. The minimum I-beam size permitted will be 2-3/4 inches by four (4) inches by 3/16 inch thick. The bumper must be mounted at rear axle height. A maximum distance of 46 inches measured at the center of the rear axle to the rear edge of the bumper will be permitted. Bumper extensions must be a minimum of 1-1/2 inch by 1-1/2 inch square magnetic steel tubing with a minimum wall thickness of 0.125 inches. Bumper extensions may be welded or bolted directly to the rear sub-frame crossmember. If bumper extensions are bolted to the rear sub-frame crossmember, four (4) bolts per bumper extension must be used and be a high quality minimum 3/8 inch diameter solid magnetic steel. Bumper extensions must have a rear bumper mounting flange a minimum of 1/4 inch thick flat magnetic steel welded completely to the bumper extension. Four (4) rear bumper mounting bolts per side must

be used and be a high quality minimum 3/8 inch diameter solid magnetic steel. All mounting bolts must have a minimum of 1/2 inch of metal from the center of the mounting bolt to the edge of the mounting flange. When the rear bumper mounting bolts are fully tightened, mounting bolts must be completely flush with the mating surface, angled or beveled washers **are required**. Grinding or machining of the rear bumper at the rear bumper mounting points will not be permitted (see Diagram #3, in the rear pages of the Rule Book). Holes and/or modifications that, in the judgment of NASCAR Officials, have been made with the intent of weight reduction, will not be permitted.

C. Remains the same.

20D - 3.11 Identification / Marking

A. Numbers / Graphics

1. All vehicle number configuration and design is subject to approval by the Series Director. Only single or double-digit numbers will be permitted. **The size, color, and style of numbers must be adequate to permit prompt identification by NASCAR Officials at all times.** Numbers must be a solid color, at least 18 inches high, measured vertically, excluding borders and silhouettes, must be neatly attached to or painted on both sides of the vehicle on the center of the door. Door numbers must be a minimum of four (4) inches in width, and slant no more than 30 degrees from vertical. The tops and bottoms of all numbers must be even (not staggered). Two (2) digit numbers must not overlap and must have a minimum of 3/4 inch separation. A solid number 18 inches high, excluding borders and silhouettes, must be neatly attached to or painted on the center of the roof, reading from the passenger side. Door and roof numbers must be of a different color to most of the background paint scheme. Numbers that are of an outline or border only style will not be permitted. Solid numbers, as large as possible, must be attached to or painted on the right side outer nose and rear vertical panel. Mirror foil numbers, state designation letters and decals **may be permitted with advanced approval of the Series Director.** Paint schemes using a mirrored or holographic appearance will not be permitted.

2 – 3. Remain the same.

20D - 4.1 General Engine Eligibility

A. The eligible engines must be production engines as determined, selected, and approved by NASCAR. All major components (engine blocks, heads, etc.) must be produced by the manufacturer for sale in a regular product offering. Prior to being used in competition, all major engine and component parts must be submitted, in a completed form/assembly, to the office of the Series Director on or prior to September **3, 2027** for consideration of approval and approved by NASCAR. Each such part may thereafter be used until NASCAR determines that such part is no longer eligible.

B - E. Remains the same.

20D - 5.6 Cylinder Head

All modifications must be submitted to NASCAR before any proposed modification will be eligible for approval. Approved manufacturers identification and part numbers in the form of cast-in part numbers must remain unaltered on the cylinder heads being used in competition. The following cylinder heads are approved for use in competition:

MANUFACTURER	PART NUMBER	CASTING NUMBER
Ford (dated 9/9/91 or later)	E3ZM6049C3	E3ZM6049C3
		M6049C3
	E3ZM6049C3L	E3ZM6049C3
General Motors 18 Degree	10134364	10134363
	24502580	10134363
Brodix 18 Degree	**1188200**	**BP 18 STD N**

NASCAR Officials may use a cylinder head provided by the respective manufacturer as a guide in determining whether a Competitor's cylinder head conforms to the specifications of the Rule Book.

20D - 5.6.1 Eligibility

To be eligible, the approved cylinder heads must be acceptable to NASCAR Officials and meet the following requirements:

1. The valve angle and valve location must remain as approved by NASCAR. Spacing between the valves measured center to center is:

MANUFACTURER	VALVE ANGLE	SPACING
Ford	Intake 7-1/2 Degrees	1.900 inches
	Exhaust 8 Degrees	
General Motors	18 Degrees	1.935 inches
Brodix	**18 Degrees**	**1.935 inches**

   Valves must remain in the approved location in relation to the cylinder bore centerline.
2. The top of the intake ports must remain in the approved location measured on the inside top of the port.
3. The vertical centerline of the intake port entrance must be straight and perpendicular to the cylinder head gasket surface. The vertical centerline of the intake port must remain in the approved location. The horizontal centerline of the intake port must be straight and parallel to the cylinder head gasket surface.
4. The vertical and horizontal centerlines of the exhaust port exit must remain in the approved location. The vertical and horizontal centerlines must be straight lines. The horizontal centerline must be parallel to, and the vertical centerline must be perpendicular to, the cylinder head gasket surface. If material is removed from the top or side of the exhaust port, the same amount must be removed from the bottom or opposite side of the port.
5. The rocker arm fastener bolt holes must remain in the approved location.
6. Only stainless steel or titanium valves are permitted. Exotic materials will not be permitted.
7. Only magnetic steel valve springs are permitted.
8. Only two (2) valves per cylinder will be permitted.
9. There are no restrictions on the valve size.

10. Internal polishing and porting will be permitted.
11. Spark plug holes must remain in the approved location.
12. Angle cutting of the cylinder head to the engine block mating surface will not be permitted.
13. Milling of the heads will be permitted, but not to exceed 0.175 inch.
14. "O" rings will not be permitted for sealing the cylinder head to the engine block.

20D - 6.5 Battery

A. Only NASCAR-approved batteries with a maximum nominal voltage of 12 volts will be permitted. Each battery(s) must be of the gel cell or absorption glass mat design, weighing a minimum of 17 pounds.

B. The battery must be located between the frame rails. The battery must be located under the hood or **in front of the firewalls, outside of the driver's compartment**. **(Language removed). The positive terminal should have a non-conductive cover, acceptable to NASCAR Officials.** The battery must not be forward of the radiator or rear of the rear end housing of the vehicle. The battery location must be acceptable to NASCAR Officials.

20D - 6.7 Accessories

A. Except as provided below, vehicles and drivers will not be permitted to carry onboard computers, automated electronic recording devices, electronically actuated devices, smartphones/cell phones, watches, micro-processors, recording devices, filming devices, electronic digital memory chips, traction control devices, digital **dash display** and the like, even if inoperable or incomplete. Competitors will not be permitted to have or have had on his/her person or in his/her possession or in his/her vehicle a device(s) at an Event designed specifically to enhance the traction capabilities of the vehicle, even if inoperable or incomplete.

B – M. Remain the same.

20D - 10.4 Transmission

A. Transmissions must be standard production design. The transmission must be from an approved manufacturer. NASCAR Officials may use a transmission provided by the respective manufacturer as a guide in determining whether a Competitor's transmission conforms to the specifications of the Rule Book.

B. Unless otherwise specified by NASCAR, the same transmission must be used for practice, qualifying, practice after qualifying and the start of the Race. A transmission must not be removed from a vehicle without the approval of the Series Director. The Series Director may require any team that removes a transmission to start at the rear of the field, providing the vehicle earns a starting position in the Race. The transmission may be removed from a backup vehicle, without penalty, at the discretion of the Series Director, as follows:

1. If a vehicle is wrecked beyond repair **prior to or** during qualifying and a backup vehicle is used, a transmission change may be permitted, however, the transmission must be installed before the beginning of practice(s), if practice(s) is scheduled, following qualifying.

2. If a vehicle is wrecked beyond repair during or after qualifying and a backup vehicle is used, then a transmission change may be permitted without an additional penalty.

If a competitor violates this Rule, in addition to imposition of a penalty pursuant to Section 12, the Series Director may take appropriate action during the Event, including but not limited to, loss of practice time and/or loss of the opportunity to qualify, and/or confiscation of the transmission or transmission components. Such action shall be deemed an inspection decision not subject to Section 12.

C. NASCAR **will** require that all vehicles compete with a final drive gear ratio specified by NASCAR Officials for each Event.

D. High gear must be 1.00:1 (direct) and be the primary gear engaged on all tracks, except road course Events, during competition. Transmission gear ratios between 1.00:1 and 1.18:1 will not be permitted for the remaining forward gears.

1. Overdrive gears will not be permitted.

E. The transmission must be acceptable to NASCAR Officials and meet the following requirements:

1. Standard production OEM type Muncie or T-10 manual four (4) speed transmissions with OEM type angle cut forward gears will be permitted. **Straight** cut forward gears will be permitted in OEM type Muncie or T-10 manual four (4) speed transmissions.
2. The Jerico #2-SP two (2) speed manual transmission and the Jerico #3-SP three (3) speed manual transmission will be permitted. Straight-cut forward gears will be permitted.
3. NASCAR-approved four (4) speed conversions with gears removed will be permitted. Transmissions may be of the top-load or left side-load designs only.

F. Only aluminum or magnesium transmission **cases** will be permitted.

All aftermarket transmission cases must meet the same dimensions as the Jerico V4.

1. The main case must be a minimum of 8.375 inches tall, bottom of the case to the center of the input shaft 5.625 inches; for a total length of 22.0 inches long when measured from the front face to the end of the tailshaft housing.

G. All transmissions must have the input shaft and its main gear constantly engaged. This assembly must be constantly engaged with the countershaft and its cluster and reverse gears.

1. Gun drilled mainshafts will not be permitted.

H. A forward gear and reverse gear must be in working order.

I. Only manual, left side externally mounted and left side rear, shift linkage and shift levers will be permitted on the transmission. Top mounted shift linkage and shift levers will not be permitted. The shift lever must be metal. All shift rods connecting the shifter mechanism to the transmission must be made of metal.

J. Only fire resistant type shifter boots will be permitted. The shifter boots must meet the SFI 48.1 specification and should display a valid SFI 48.1 label visible on the outside of the shifter boot. Shifter boots must not be used beyond two (2) years from the date of manufacture. **(Language removed).** The shifter boot **(language removed)** must mount directly to and must be completely sealed to the floor of the vehicle. Installation of the shifter boot must be acceptable to NASCAR Officials.

K. Heating pads, probes, and/or blankets will not be permitted for warming the transmission.

L. All transmissions must be prepared with two (2) top cover or side cover bolts and two (2) tail housing bolts drilled to accept installation of a 1/8 inch minimum diameter NASCAR seal.

M. The complete transmission assembly, as raced, must weigh a minimum of 50 pounds including the shifter assembly, internal oil pump assembly (if used) and lubricant. The minimum weight will not include the shift lever and rear mount.

20D - 14.2 Brake Cooling

A. One (1) air duct per wheel may be used for brake cooling with a maximum hose diameter of three (3) inches. If screen is used, it must be a single layer with a minimum ¼ inch opening. Front brake cooling inlets must be removed if not operational. Tape may not be used to block them off.

B. All air inlets must be acceptable to NASCAR Officials. The maximum front brake air inlet size is four (4) inches by nine (9) inches. Front air inlets may be mounted on the outside of the front frame rails, with the leading edge no farther forward than the frame rail at the rear edge of the front bumper mount. Front air inlets may also be mounted to the sway bar arm or spindle. All brake air inlets must be mounted vertically and must be operational. Front spindle air ducts are permitted and must be made of metal. The maximum radius of the spindle air ducts is defined by the upper leading edge of the front brake caliper and the lower edge of the steering arm. An outer band may be installed at 90 degrees to the vertical surface of the duct, with a maximum width of one (1) inch. Front **and rear** brake cooling fans are not permitted. The maximum rear brake air inlet size is three (3) inches by eight (8) inches. Rear brake air inlets (NACA ducts) mounted in the door or quarter panels must be flush with the body surface. A ½-inch air deflector may be attached. If routed beneath the vehicle, rear brake air inlets must not extend below the bottom of the frame rail and must be mounted in a ½ inch by ½ inch angle frame. **(Language removed).** Hub-mounted brake blowers are not permitted. One (1) rear brake cooling hose per side, with a maximum diameter of three (3) inches, is permitted. The hose outlet must be mounted parallel to the rear brake rotor and used for brake cooling only. If rear brake air inlets are not operational, they must be blocked off and the ½-inch air deflector removed. All screens, air ducts, and brake cooling hoses from the air inlet opening to the brake assembly must be acceptable to NASCAR Officials.

C – E. Remain the same.

20D - 16.1 Fuel Cell

A. Only the following fuel cell bladders are approved by NASCAR for use in competition.

Aero Tec Laboratories, Inc. (ATL) (Part Number)	**(Language Removed)**

FB 222 B
FB 322 B
SK-UN-203
SK-UN-301

Schultz Engineered Products
(Schultz Fuel Cells)
(Part Number)
STB22B

Pyrotect Racing Cells
(PYROTECT)
RSN 024

B. The NASCAR-approved nominal fuel cell size shall be 24-1/4 inches by 16-3/8 inches by 13-1/4 inches.

C. Modifications to the approved fuel cell bladders, including the nut ring, will not be permitted.

D. The maximum fuel cell capacity, including the filler spout and overflow, must not exceed 24 gallons.

E. Materials other than standard foam, as provided by an approved fuel cell manufacturer, will not be permitted.

F. All approved fuel cells must be equipped with an approved fuel cell check valve assembly that meets one of the following minimum requirements:

FUEL CELL CHECK VALVE HOUSING
(STEEL BALL TYPE)

1. The fuel cell check valve housing must be manufactured of aluminum or magnetic steel plate not less than 1/4 inch thick. A cast aluminum check valve housing assembly will not be permitted. The bottom surface of the check valve plate must be flat. Spacers will not be permitted between the check valve plate and the fuel cell bladder. Only one (1) gasket, with a maximum thickness of 0.065 inch will be permitted between the check valve plate and the fuel cell **bladder. If two (2) gaskets are used, one (1) must be between the plate and the can top, and one (1) must be between the can top and the fuel cell bladder.**
2. The solid steel ball check valve must be encased in a four (4) rail carriage. The carriage rails must be constructed of solid aluminum or magnetic steel not less than 1/4 inch thick by not less than 3/4 inch wide material. The carriage rails must be positioned such that the surface of the 1/4 inch thick edge rides against the steel check ball. Outside surfaces of the carriage must not have any sharp edges. The carriage must not be altered in any way and must remain perpendicular to the fuel cell check valve top flange plate.
3. The fuel filler check valve carriage must not exceed a maximum depth of 8-1/2 inches. The maximum inside diameter of the filler neck including the check ball seat must not exceed 2-1/8 inches. When seated at least 1/2 of the check ball must be visible. The diameter of the solid steel check ball must be 2-3/8 inches. The filler neck must not be made of cast aluminum.
4. The fuel vent check valve carriage must not exceed a maximum depth of 8-1/2 inches. The maximum inside diameter of the vent pipe neck including the check ball seat must not exceed 1-1/4 inches. When seated, at least 1/2 of the check

ball must be visible. The diameter of the solid steel check ball must be 1-3/8 inches. The fuel vent check valve must not be made of cast aluminum.

5. The fuel inlet tube and vent tube must have a bead around its outside circumference for hose retention.

(FLAP TYPE)

1. The fuel cell check valve housing must be from an approved manufacturer and be made of aluminum or magnetic steel plate not less than 3/16 inch thick. A cast aluminum check valve housing assembly will not be permitted. The bottom surface of the check valve plate must be flat. Spacers will not be permitted between the check valve plate and the fuel cell bladder. Only one (1) gasket with a maximum thickness of 0.065 inch will be permitted between the check valve plate and the fuel cell bladder.
2. The fuel filler check valve assembly equipped with a fuel resistant flap (Viton) mounted in the center of its circumference and must maintain a minimum outside diameter of 3-1/2 inches. The maximum inside diameter of the fuel filler inlet must not exceed 2-1/8 inches. The fuel filler check valve assembly must not be made of cast aluminum.

   A. As an option, the fuel fill check valve may be made as a spring loaded, metal, paddle type valve that remains closed in any position except when filling the vehicle. The paddle door must be a minimum of 0.150 inches thick.
3. The fuel vent check valve carriage must not exceed a maximum depth of four (4) inches. The maximum inside diameter of the vent pipe neck including the check ball seat must not exceed 1-1/4 inches. The diameter of the solid steel ball/poppet must be 1-3/8 inches. The fuel vent check valve neck must not be made of cast aluminum.
4. The fuel inlet tube and vent tube must have a bead around its outside circumference for hose retention.

G. Fuel cells must not be used beyond five (5) years after the date of manufacture.

H. Fuel cell check valve housings that have been approved for the NASCAR O'Reilly Auto Parts Series and the NASCAR FedEx Freight Truck Series are approved for competition.

20D - 17 PERSONAL SAFETY EQUIPMENT

A. General

1. Each Competitor is solely responsible for the effectiveness of personal safety equipment used during an Event. NASCAR IS NOT RESPONSIBLE FOR THE EFFECTIVENESS OF ANY PERSONAL SAFETY EQUIPMENT.
2. Each Competitor is expected to investigate and educate himself/herself fully with respect to the availability and effectiveness of personal safety equipment. NASCAR may, from time to time, schedule information sessions with Competitors and safety experts. Each Competitor is expected to attend and participate in such sessions.

B. Protective Clothing

IT IS THE RESPONSIBILITY OF THE DRIVER AND CREW MEMBER, NOT NASCAR, TO ENSURE THAT HE/SHE MAINTAINS, WEARS AND PROPERLY

USES PROTECTIVE CLOTHING.

DRIVERS – Unless otherwise authorized, while on the track during the Event, Drivers must comply with the following:

	Use Required	Use Recommended	SFI/FIA Specification (minimum)	SFI/FIA Specification (recommended)	SFI Label Visibly Displayed
Uniform	X One-piece Uniform		3.2A/5	3.4/5	Outside Surface of Left Sleeve
Shoes	X		3.3/5		X
Gloves	X		3.3/5		X
Head Sock and/or Helmet Skirt	X **See note below**		3.3 FIA 8856-2000 FIA 8856-2018		X
Underwear/ Socks	**X**		**3.3 FIA 8856-2000 FIA 8856-2018**		X
Helmet	X Refer to Section 20D17.1A Helmets				Helmet Certification Label Affixed To Helmet At All Times

Helmet skirts must encircle the entire circumference of the helmet, protect the entire neck of the driver, including the nape, and maintain overlap with the uniform collar during normal driving head motion and while standing. Exposed neck skin is not permitted.

CREW MEMBERS – During race conditions, any crew member who steps into the vehicle servicing area must comply with the following:

	Use Required	Use Recommended	SFI/FIA Specification (minimum)	SFI/FIA Specification (recommended)	SFI Label Visibly Displayed
Uniform	X		3.2A/1	3.2A/5 or 3.4/5	Outside Surface of Left Sleeve
Shoes	X		3.3/5		X
Gloves	X		3.3/5		X
Head Sock and/or Helmet Skirt		X		3.3 FIA 8856-2000 FIA 8856-2018	X
Underwear/		X		3.3	X

Socks				FIA 8856-2000 FIA 8856-2018	
Helmet	X Refer to Section 20D17.1 A Helmets				

FUEL HANDLER/FUELER (CREW MEMBER) – During race conditions, any crew member involved in fueling the vehicle or handling or transporting fuel in the garage or pit area must comply with the following:

	Use Required	**Use Recommended**	**SFI/FIA Specification (minimum)**	**SFI/FIA Specification (recommended)**	**SFI Label Visibly Displayed**
Uniform	X		3.2A/5	3.4/5	Outside Surface of Left Sleeve
One-Piece Uniform		X		3.2A/5 or 3.4/5	Outside Surface of Left Sleeve
Shoes	X		3.3/5		X
Gloves	X		3.3/5		X
Apron Only aluminized fabric aprons are permitted	X		52.1		X
Underwear / Socks		X		3.3 FIA 8856-2000 FIA 8856-2018	X
Head Sock and/or Helmet Skirt	X **See note below**		3.3 FIA 8856-2000 FIA 8856-2018		X
Full-face Helmet with Covering Face Shield	X Refer to Section 20D17.1A Helmets				Helmet Certification Label Affixed To Helmet At All Times

Helmet skirts must encircle the entire circumference of the helpmet, protect

the entire neck, including the nape, and maintain overlap with the uniform collar during normal head motion and while standing. Exposed neck skin is not permitted.

C – D. Remain the same.

20D - 17.1 Helmets / Head and Neck Restraint Devices / Systems

A. Helmets

1. Drivers must wear a full-face helmet carrying at least one (1) of the following certifications:

(Language removed)
FIA 8859-2015 (with a date of manufacture after January 1, 2020)
FIA 8860-2018
(Language removed)
Snell SA 2020
Snell SA 2025

Helmet certification (label) must be affixed to the helmet at all times.

Helmets should be fitted with a NASCAR-approved helmet removal system. The following systems are currently approved:

Eject™ Helmet Removal System

2. The driver must wear the helmet in accordance with the directions provided by the helmet supplier and/or manufacturer. Any modification to the helmet for any purpose should not detract from its effectiveness. Helmet surface protrusions such as visor tear-off posts should be removed.
3. During Race conditions, any crew member who steps into the vehicle servicing area must wear a helmet.
4. During Race conditions, any crew member involved in fueling the vehicle must wear a full face helmet with a covering face shield and a fire resistant head sock or helmet skirt. The head socks and/or helmet skirts must meet the SFI 3.3 specification and must visibly display a valid SFI 3.3 label.

   Helmets should be fitted with a NASCAR-approved helmet removal system. The following systems are currently approved:

   Eject™ Helmet Removal System

5. IT IS THE RESPONSIBILITY OF THE DRIVER/CREW MEMBER, NOT NASCAR, TO ENSURE THAT HIS/HER HELMET IS APPROVED, CORRECTLY WORN, MAINTAINED AND PROPERLY USED.

B – C. Remain the same.

20D-18 ROLL BARS

A. As a minimum, all vehicles are required to have the basic and typical roll cage configured as shown in Diagrams #1, 1A & B, in the rear pages of the Rule Book. Unless otherwise specified below, all roll bars must be made from round magnetic steel seamless tubing 1-3/4 inches by 0.090 inch minimum wall thickness meeting the ASTM A-519 specification. Alloys other than mild steel will not be permitted. Electric resistance welded tubing, aluminum and/or other soft metals will not be permitted. Roll bar joints and intersections must be welded according to the ASTM specification for the material being welded. A maximum of one (1), maximum 1/8 inch diameter hole may be drilled at each welded roll cage joint for the purpose of purging the tubes when welding. Once constructed and installed, the roll cage must be acceptable to NASCAR Officials. Holes and/or other modifications that, in the judgment of NASCAR Officials, were made with the intent of weight reduction will not be permitted. Modifications or alterations which detract from or compromise the integrity or effectiveness of any roll cage component will not be permitted.

B. Basic NASCAR Roll Cage Structure

1. The main roll bar (#1 in Diagrams #1 & 1A) must be a continuous length of tubing with one end welded to the top of the right frame rail and one end welded to the top of the left frame rail and with both rising to maintain a minimum clearance with the "B" posts and follow along the inner surface of the roof panel with a minimum clearance for the roof panel. The main roll bar (#1) may be tilted a maximum of 20 degrees rearward. The main roll bar (#1) must also be braced with one (1) diagonal bar (#5) and one (1) horizontal shoulder bar (#7). All bends in the main roll bar (#1) must be as symmetrical as minimum clearances permit.
2. The distance from the center of each of the front roll bar legs (#2 A & B) to the center of the main roll bar (#1) must not measure less than 39-1/2 inches. Each of the front roll bar legs (#2 A & B) must be constructed from a continuous length of tubing. One leg must be welded perpendicular to the top of the right frame rail and one leg welded perpendicular to the top of the left frame rail with both legs rising vertically a minimum of 21-1/4 inches before bending inward and rearward to maintain a minimum clearance with the "A" posts. Both legs must follow along the inner surface of each respective "A" post. The front roll bar legs (#2 A & B) must be welded to the roof bar (#3) near the upper corners of the windshield opening or extend rearward along the outer edge of the roof and be welded to the main roll bar (#1).
3. The roof bar (#3) which may be incorporated into the front roll bar legs (#2A & B) extends forward from the outer edges of the main roll bar (#1) with minimum clearance to the roof panel and remain parallel to the main frame rails. The roof bar must follow the contour of the windshield opening as it bends across the front and be within four (4) inches to the top of the windshield opening. The roof bar (#3) must extend from the edge of the roof on the left side across to the right side. The center to center width of the roof bar (#3) must be a minimum of 39 inches, and a minimum distance of 37-1/2 inches must be maintained from the center of the roof bar (#3) to the center of the main roll bar (#1).
4. The centerline roof bar (#4) must be a continuous length of tubing, extending from the main roll bar (#1) forward to the roof bar (#3) near the vehicle’s centerline or

be a diagonal bar from the intersection of the main roll bar (#1) and the roof bar (#3) on the right side and extend to the intersection of the roof bar (#3) and the left front roll bar leg (#2A) on the left side. The center windshield bar (#4A) must extend forward from the roof bar (#3) near the vehicle's centerline and bend downward and be welded to the dash panel bar (#8) near the vehicle centerline.

5. The main roll bar diagonal bar (#5), must form a straight line, with no bends and must begin near the upper left bend of the main roll bar (#1) behind the driver's head and after intersecting the horizontal shoulder bar (#7), it must be welded to the lower right side of the main roll bar (#1).
6. One (1) horizontal shoulder bar (#7) must be a continuous length of tubing and must be welded, with no bends, inside the vertical legs of the main roll bar (#1) at a minimum height of 15-1/2 inches above the main frame rails. An additional shoulder belt bar (#7B) must be a continuous length of tubing and may be added above the horizontal shoulder bar (#7) to facilitate shoulder harness mounting height. The shoulder belt bar (#7B) must be welded to the main roll bar (#1) and the main roll diagonal bar (#5) or it may be bent tube constructed of 1-3/4 inches by 0.090 minimum wall thickness steel, round tubing, meeting the ASTM A-519 specification, welded at each end to the horizontal shoulder bar (#7) to form a loop above the horizontal shoulder bar (#7).
7. The dash panel bar (#8) must be a continuous length of tubing, with no bends, welded beneath the dash panel between the two (2) front roll bar legs (#2 A & B) at a minimum height of 15 inches above the main frame rail.
8. (a) The door bars (#9 A & B), on both the left and right sides, must have a minimum of four (4) bars equally spaced from top to bottom that must be welded horizontally between the vertical uprights of the main roll bar (#1) and the front roll bar legs (#2 A & B). The top door bar on each side must maintain a minimum vertical height of 15 inches from the top of the main frame rails to its centerline and match up with the intersection of the dash panel bar (#8) at the roll bar legs (#2A & #2B) at the front and the intersection of the horizontal shoulder bar (#7) at the main roll bar (#1) at the rear. All left side door bars must be convex in shape. The left side door bars (#9 A) must have a minimum of six (6) vertical supports per side with two (2) equally spaced between each door bar. These supports must be made from a minimum of 1-3/4 inches by 0.090 inch wall thickness magnetic steel seamless round tubing (not numbered but shown in the left side view of diagram #1). Right side door bars must cover a minimum of 25 inches of door length and may be either four (4) horizontal bars with six (6) vertical studs or two (2) horizontal bars and two (2) bars configured in an X design. If the X design is used, a vertical bar must connect through the center of the X from the top horizontal bar to the frame.

   (b) Two (2) vertical anti-intrusion bars must be welded between the left side top door (#9) and the left side of roof bar (#3). One (1) horizontal anti-intrusion bar must be welded between the vertical anti-intrusion bars and one (1) horizontal anti-intrusion bar must be welded between the rear vertical anti-intrusion bar and the main roll bar (#1) and must be convex in shape. The horizontal anti-intrusion bars must be installed at an equal

distance from the top of the left side door bar (#9) to the bottom of the left side of roof bar (#3). The anti-intrusion bars must be made from a minimum of 1-1/2 inches by 0.090 inch wall thickness magnetic steel seamless round tubing.

(c) A 0.0897 inch thick magnetic steel, anti-intrusion plate(s) must be securely welded to the outside of the left side door bars. The anti-intrusion plate(s) must fill the area between the horizontal centerlines of the top and bottom door bars, and vertical centerlines of main roll bar (#1), and the left front roll bar leg (#2A). The plate(s) must be formed to match the curvature of the door bars. Plate(s) welded between the vertical upright bars should be as large as possible. All plate(s) must have the corners welded with one (1) inch of weld followed by a maximum of three (3) inches of surface not welded and followed again by a minimum one (1) inch weld.

To facilitate emergency removal of the left side door bars (#9A), the anti-intrusion plate must have six (6), 2-1/8 inch diameter holes cut in the anti-intrusion plate. **The holes must remain open and must not be sealed, covered, obstructed, or otherwise closed off in any way.** **The** three (3) holes forward of the front vertical supports and three (3) holes rearward of the rear vertical supports **must be** in the following locations:

The upper two (2) holes must be centered vertically between the left side door bars (#9A-1&2), at an on-center distance of three (3) inches from the center of the front vertical support and the rear vertical support.

The middle two (2) holes must be centered vertically between the left side door bars (#9A-2&3), at an on-center distance of three (3) inches from the center of the front vertical support and the rear vertical support.

The lower two (2) holes must be centered vertically between the left side door bars (#9A-3&4), at an on-center distance of three (3) inches from the center of the front vertical support and the rear vertical support (see Diagram #2 in the rear pages of the Rule Book).

9. All vehicles must have a foot protection bar acceptable to NASCAR Officials installed on the left side of the roll cage. The foot protection bar must be located at or in front of the pedal assembly, when viewed from the side and above. The foot protection bar must be completely welded to the left front roll bar leg (#2A) and extend forward and be completely welded to the main frame rail or front sub-frame.
10. The vertical vent window bars (#10 A & B) must each be a continuous length of tubing, welded from the upper surface of the top door bars on the right side and left side to the front roll bar legs (#2 A & B). The vertical vent window bars (#10 A & B) must be perpendicular to the top door bars (#9 A & B). A minimum of one (1) vertical bar must extend from the roof bar (#3) radiused outward and turn down to the top horizontal door bar (#9A) on the driver's side. The vertical bar must be a minimum 1-1/2 inch diameter by 0.090 inch wall thickness magnetic steel seamless round tubing and must be located in line with the driver and must not extend forward of the left side headrest/head surround assembly.

11. The two (2) angular supports (#11 A & B) must be welded to the top of the main frame rail and to the bottom surface of the bottom door bar on both the left and right side.
12. The rear support bars (#13 A & B) must be continuous lengths of tubing welded to the left and the right back side of the main roll bar (#1) near the roof panel at the top. They must extend to and be welded to the top of the rear sub-frame rail within one (1) inch of the rear edge of the fuel cell.
13. The two (2) front sub-frame bars (#16 A & B) must be a minimum 1-3/4 inch diameter by 0.083 inch wall thickness magnetic steel seamless round tubing. They must be welded to the right side and the left side of the front roll bar legs (#2 A & B) at a minimum height of 15-1/2 inches. The front sub-frame bars (#16 A & B) must extend forward, turn down, and must be welded to the front sub-frame rails.

C. Gussets

1. Gussets must be used at the intersection where the main roll bar (#1) and the front roll bar legs (#2 A & B) meet the main frame, and the gussets must be constructed using a minimum one (1) inch wide by two (2) inches high magnetic steel box tubing.
2. Gussets must be used at the intersection where the front roll bar legs (#2 A & B) intersect the roof bar (#3), and the gussets must be constructed from a minimum 0.095 inch minimum thickness triangular-shaped magnetic steel flat plate measuring a minimum of 1-1/2 inches long on each side that is to be welded.
3. Gussets must be used at the intersection of main roll bar (#1) and the front roll bar legs (#2 A & B) with door bars (#9 A & B) and the gussets must be constructed from a minimum 0.095 inch minimum thickness triangular-shaped magnetic steel flat plate measuring a minimum of 1-1/2 inches long on each side that is to be welded.
4. Gussets must be used at the intersection of main roll bar (#1) and the rear support bars (#13 A & B), and the gussets must be constructed from a minimum 0.095 inch minimum thickness triangular-shaped magnetic steel flat plate measuring a minimum of 1-1/2 inches long on each side that is to be welded.

D. For the approved location of the various roll bars, please reference both the basic roll cage diagrams and the typical roll cage diagrams at the rear of the Rule Book.

E. Modifications to the basic and typical roll cage design described above must be submitted in blueprint and/or computer aided design (CAD) files for acceptance to the office of the Series Director at least 60 days before the design can be entered in competition. If the Series Director accepts the modification as set forth in the submitted files the Competitor must submit for inspection a completed frame and roll cage at least 30 days prior to the date of intended competition. Acceptance of the submitted blueprint and/or computer aided design (CAD) files does not guarantee acceptance of the completed frame and roll cage design, and the Series Director may decide not to accept such design even if it is the same as the submitted files. If the Series Director accepts the completed frame and roll cage, it may then be used in competition in the form accepted, unless and until the form is no longer approved by the Series Director.

F. All roll bars within the driver's reach must be covered with impact absorbent material manufactured to the SFI 45.1 specification and be acceptable to NASCAR Officials. Impact absorbent material used on roll bars must meet the SFI 45.1 specification and be imprinted on the outside surface with the SFI logo.

G. All references to the roll cage, roll bars, roll cage bars or the roll cage bar design specified in other sub-sections of the Rule Book must refer to sub-section 20D-18.

H. At the discretion of NASCAR Officials, additional material and/or tubing may be required to be welded to any vehicle that does not conform to the January 1, **2027** roll cage or roll bar specifications as described in sub-section 20D-18.