

Figure 7: General roll bar specs

ROLL BARS: All roll bars must be within 6" of the rear, or side, of the driver's head, extend in height at least 3" above the driver's helmet with the driver in normal driving position, and at least as wide as the driver's shoulders or within 1" of the driver's door. Must be adequately supported or cross-braced to prevent forward or lateral collapse. Braces must be of the same diameter and wall thickness as the roll bar and intersect with the roll bar at a point not more than 5" from the top of the roll bar. Side-bar must be included on driver's side. The side bar must pass the driver at a point midway between the shoulder and elbow.

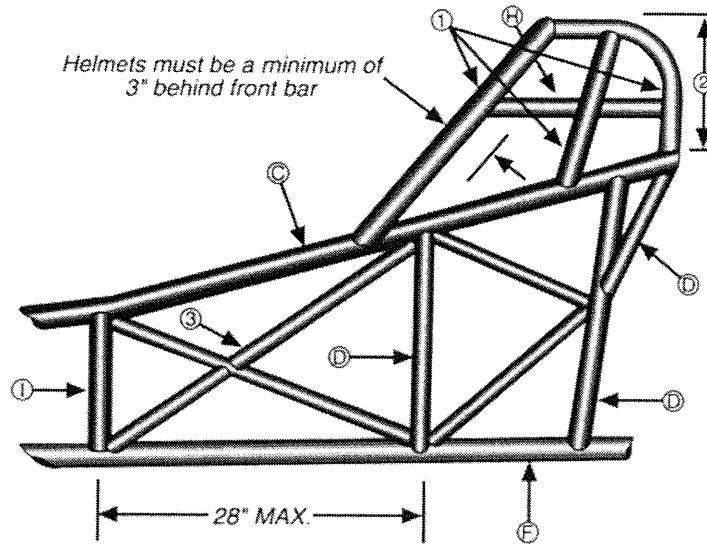
All vehicles with OEM frame must have roll bar bolted or welded to frame, installation of frame connectors on unibody cars does not constitute a frame and, therefore, it is not necessary to have the roll bar welded to the frame. Cars without frame must securely attach roll bar with 6" x 6" x .125 steel plates on top and bottom of floor bolted together with at least four 3/8" bolts and nuts. If roll bar is welded to the rocker sill area with .125" reinforcing plates, the 4 attachment bolts are not mandatory. All chrome moly welding must be done by approved TIG Heliarc process; mild steel welding may be done by MIG (wire feed) or TIG process. Welding must be free of sag and porosity. Any grinding of welds prohibited. Roll bar must be padded any where driver's helmet may contact it while in driving position. Adequate padding must have minimum 1/4" compression.

ROLL CAGE: All cage structures must be designed in an attempt to protect the driver from any angle, 360-degrees; cars with out inspection above driver's legs must have a shield or device to prevent legs from protruding outside chassis. When driver is in driving position in an open bodied car, roll cage must be at least 3" in front of helmet. On front engine dragster, seat uprights and back braces must be arranged such that a flat surface passed over any two adjacent members will not contact the driver seat or containment. Additional uprights, max 30 degrees from vertical, must be added until this criteria is satisfied.

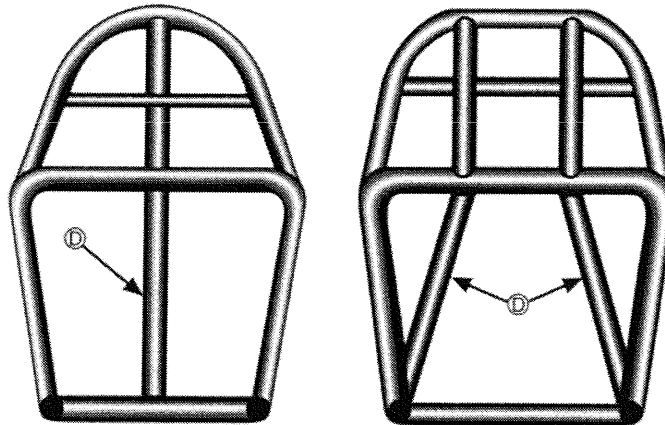
On full bodied car, with driver in driving position, helmet must be in front of main hoop. Side bar must pass the driver at a point midway between the shoulder and elbow. All cage structures must have in their construction a cross bar for seat bracing and as the shoulder harness attachment point; cross bar must be installed no more than 4" below, and not above, the driver's shoulders or to side brace. On any car where the stock flooring has been removed or frame is inside of the drivers seat, the roll cage must

ALTEREDS, FUNNY CARS

7.50 seconds E.T. and slower



REAR VIEWS



When using 2 uprights, they may be 1" x .049" wall, minimum.

#1 Funny Car and front engine dragster use tubing code B. All others use code A. There shall be a minimum of 6 points of attachment on all vehicles (except: rear engine dragsters 5 points). Front engine dragsters may use 5 point 1 5/8" OD, or 6 point 1 1/2" OD.

#2 If over 18", dimension (A) becomes (B), and (C) becomes (A).

#3 If an X or K is used then 5/8" .058", otherwise E.

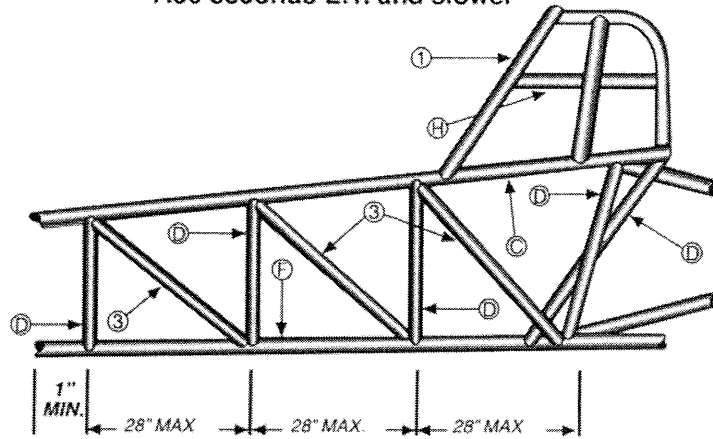
RED, FED Altered and Funny Car Tubing Code			
	O.D.	Chrome Moly	Mild Steel
A	1 1/2	.065	.118
B	1 5/8	.065	.118
C	1 3/8	.058	.118
D	1 1/4	.058	.118
	1 1/8	.065	.118
E	3/4	.058	.118
	1	.049	.118
F	1 1/4	.058	.118
	1 3/8	.049	.118
G	5/8	.058	.118
H	1	.058	.118
I	1 1/4	.049	.118

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Figure 8: Altered, Funny Car roll cages

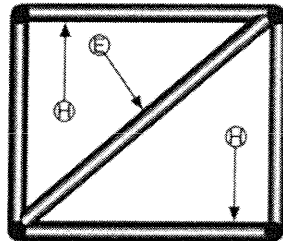
REAR ENGINE DRAGSTERS

7.50 seconds E.T. and slower

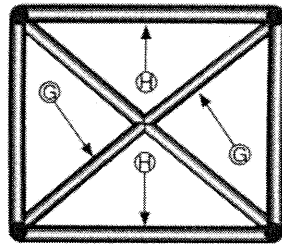


All dimensions apply to drivers compartment only.

FRONT VIEWS (Dragster rear engine)

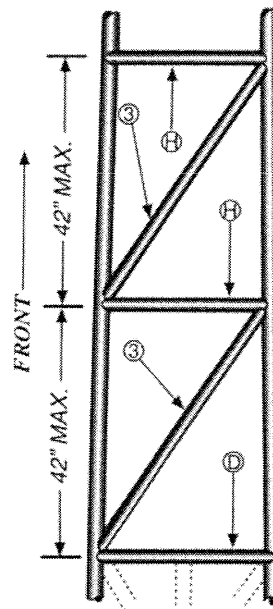


OPTION #1



OPTION #2

BOTTOM VIEW



FRONT ENGINE DRAGSTERS

7.50 seconds E.T. and slower

- #4 If lower frame rails transition into back brace uprights, must include a 1" x .058" crossmember between back brace uprights (rear seat crossmember), min 5-inches max 10-inches above lower frame rails.
- #5 "Kidney" upright.

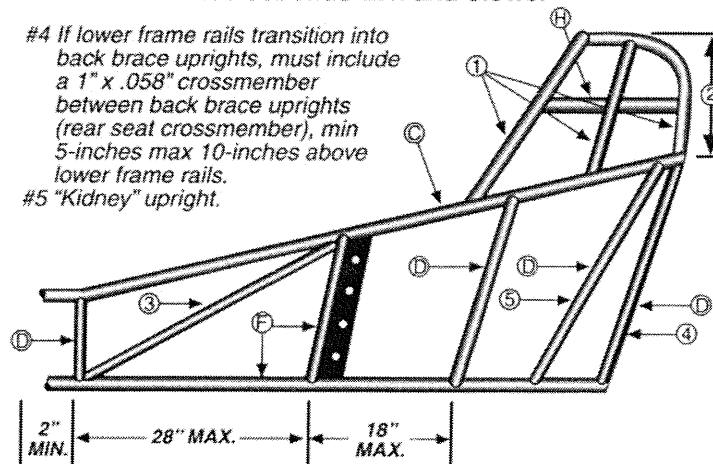


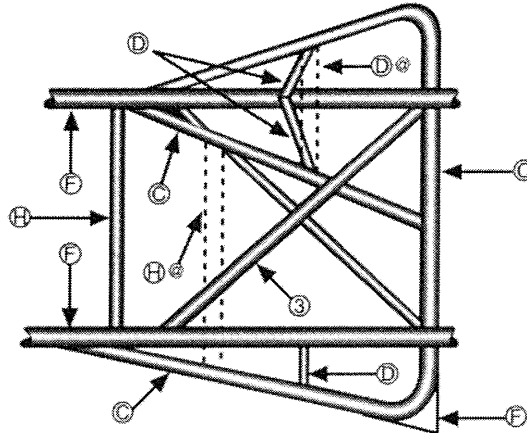
Figure 9: Rear-Engine Dragster roll cage

STREET ROADSTER

7.50 seconds E.T. and slower

TOP VIEW FROM ABOVE

(roll cage removed from drawing for clarity)

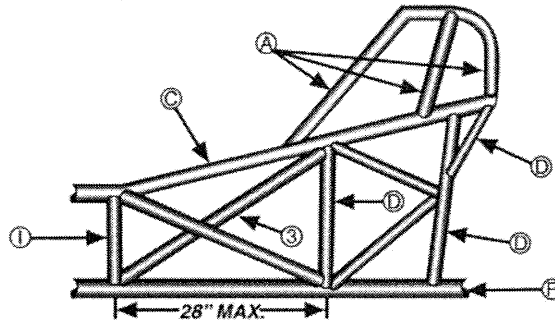


- H- Foot box support 1 x .058"
- H@- Retention for drivers legs, also can be a dash mount 1 x .058"
- F- Lower frame - needs extension on left side when driver seat is overhanging lower frame rail.
- D@- Horizontal, 1 1/4 x .058" used to tie inner and outer upper frame, only when no other support exists.

When 1 5/8 x .083" is used, for upper © and Lower ƒ frame and uprights ①, eliminates the need for inner frame diagonals ③. Diagonals ③ along outer frame and uprights still mandatory.

LEFT SIDE VIEW

(Driver is on left side of driveshaft)



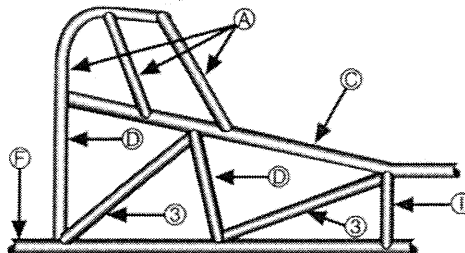
Helmet must be a minimum of 3" behind front bar.

- | | | | |
|-------------------|------------------------|--------------------|-------------------|
| A- Roll cage hoop | 1 5/8" x .065" | 3- Single Diagonal | 3/4" x .058" |
| | 6 points of attachment | X- or K Design | 5/8" x .058" |
| C- Upper frame | 1 1/2" x .058" | F- Lower frame | 1 5/8" x .058" |
| D- Uprights | 1 1/4" x .058" | | or 1 3/8" x .049" |
| | or 1 1/8" x .065" | f- Foot upright | 1 1/4" x .049" |

Mild steel construction requires .118" minimum wall thickness.
Lower frame of square tubing minimum is 2" x 2" x .058".

RIGHT SIDE VIEW

(Inner view, base for roll cage)



When this design is used for the inner structure, adjacent to the driver, then the outer structure has no minimum requirements.

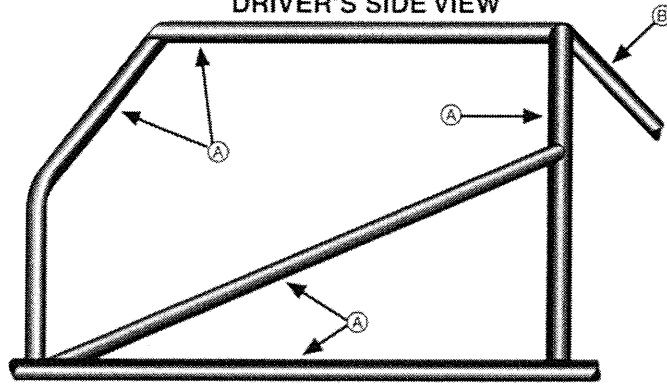
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Figure 10: Street roadster roll cage

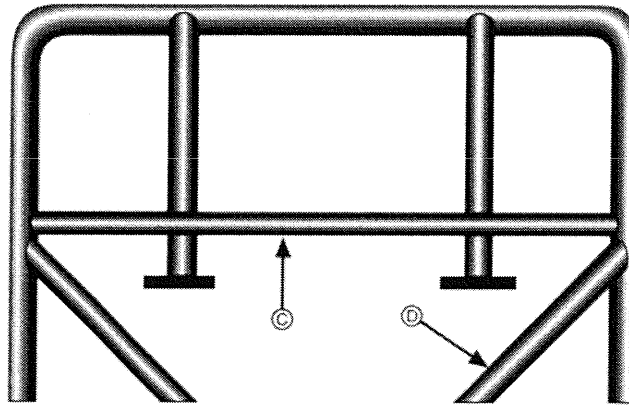
FULL-BODIED CARS

8.50 seconds E.T. and slower

DRIVER'S SIDE VIEW



REAR VIEW



All cars with an OEM frame must have roll cage welded to frame.

- B- If A, two bars any length.*
- If B1, two bars, 30" or less.*
- If B2, minimum 4 bars.*
- If B3, minimum 6 bars.*

D- 1 1/4" x .058" cm or .118 ms, mandatory when main hoop welded to plates on floor, must be connected to sub frame.

** Door diagonals may be substituted with an "X" brace of 1-1/2" by .065 CM or .118 MS.*

Tubing Code			
	O.D.	C.M.	M.S.
A	1 5/8	.083	.118
B-1	1 1/2	.058	.118
B-2	1 3/8	.049	.118
B-3	1 1/4	.049	.118
C	1 1/4	.065	.118
D	1 1/4	.058	.118
CM	Chrome Moly		
MS	Mild Steel		

Figure 11: Roll cage specs

incorporate a rocker or sill bar to tie the front and rear of the roll cage together. Minimum specifications: 1-5/8"OD x.083 cm, or 1-5/8"OD x.118 ms or 2"x2"x.058 box tubing. Frame rails may be a minimum of 1 5/8 x .083 cm or .118 ms or 2 x 2 x.058 cm or MS. Mild steel welding may be done by MIG or TIG process. All chromoly must employ only TIG process. Welding must be free of slag and porosity. Any grinding of welds prohibited. Additionally, roll cage must be padded anywhere the driver's helmet may contact it while in the driving position. Swing out bars are permitted on OEM full bodied entries running 8.50 and slower. They must be designed as follows: 1 5/8 diameter x .083 cm or .118 ms connected with a minimum of 3/8 bolts or pins affixed in double shear. Clevis or sliding sleeve connections permitted. All male brackets must be a minimum of 1/8 inch with corresponding female bracket being 1/4 inch. Sliding sleeves must have a minimum of 2 inch engagement at the connection.

Chrome plating of roll cage prohibited on all entries running 7.50 or quicker 1/4 mile, or on entries that want a certification that is within that respective SFI specs E.T. range. A dash bar and rocker sill bar are mandatory on all entries running 150 mph or quicker or if the OEM firewall has been modified in excess of 1 square foot for transmission removal. Minimum specifications: 1-1/4" x .058cm, or 1-1/4" x .118ms.

Head guards or helmet bars must be installed on all entries presented for certification under SFI specifications 2.2, 2.3, 2.4, 2.5, 2.6, 2.7, 10.1 and 10.2. The minimum specification is 1 inch X .058 cm. See appropriate SFI specification for all full bodied entries 8.49 or quicker 1/4 mile. Chassis certifications are mandatory on all entries running 9.00 or quicker 1/4 mile, or 6.00 or quicker 1/8 mile or on any vehicle that exceeds 150 mph.

SEAT BELTS: (DRIVER RESTRAINT SYSTEMS) All competition vehicles requiring a roll bar or cage, or as outlined by class requirements, must use an SFI 16.1 driver restraint system. All cars not required by Class Requirements to use SFI 16.1 driver restraint system must be equipped with an accepted quick release-type driver seat belt. Belts must be securely fastened to the frame, inspection or reinforced mounting point. Seat belts may not be wrapped around lower frame rails (or any frame rail or cross member, such that belt may be damaged in event that frame rail or cross member comes in contact with racing surface. If used for installation, flat steel plates must be a minimum of 1/4" thickness and have rounded edges to prevent cutting seat belts. Under no circumstances can belts be installed with bolts through webbing. In all cars with fiberglass floors, a cross member (minimum 2" x 2" x .083" wall thickness square tubing) must be installed between frame rails for proper driver's seat belt installation.

Arm restraints when required, must be worn to ensure that the drivers hands do not extend outside of the frame rails or protected area. Arm restraints must be installed in a way that they will release with the drivers restraint system.

SYSTEM MUST BE UPDATED AT TWO-YEAR INTERVALS FROM DATE OF MANUFACTURE, FOR ALL ENTRIES REQUIRING THE SYSTEM. (All cars that are NOT required by Class Requirements to use SFI 16.1 driver restraint system do not need belts updated.)

All seat belt and shoulder harness installations must be mutually compatible, originally designed to be used with each other. For harness installation, see illustration below.

Cars using OEM or OEM type seat, may route crotch strap in front of seat instead of through seat. Only those units that release all five attachment points in one motion are permitted. When arm restraints are worn with a system that utilizes a "latch lever", a protective cover must be installed to prevent arm restraint from accidentally releasing the lever. All harness sections must be mounted to the frame, cross member, or reinforced mounting, and installed to limit driver's body travel both upward and forward. Seat belts may not be wrapped around lower frame rails.

Upper-torso restraining straps are permitted in all other cars. It is acceptable that all seats be mounted vertically and incorporate a compatible crotch strap. Under no circumstances are bolts inserted through belt webbing permitted for mounting. Check manufacturers instructions.

SHOCK ABSORBERS: See Class Requirements.

STARTERS: All cars must be self starting, with the exception of TF, PFD, and PNFC (push starts prohibited in all categories).

STEERING: Each car's steering system will be inspected to determine its condition. Steering must be considered safe by the Technical Committee. Drag link and tie rod ends must be secured and keyed. All altered or modified steering systems will be closely checked for insecure welds and faulty parts. All welded parts must have additional visible reinforcement. Only conventional automotive steering systems are permitted. All rod ends where used must be a minimum of 3/8" shank diameter and must be installed with flat washers to prevent bearing pull out. All steering boxes, sectors and shafts must be mounted to the frame or suitable location and may not be mounted in any case to the bell housing and/or bell housing adapter shield, motorplate or firewall.

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WHEELS & TIRES: Hubcaps must be removed for inspectors, who will check for loose lugs, cracked wheels, worn or oversize lug holes, spindles, axle nuts, cotter pins, etc. Snap on hubcaps or tie wrap wheel covers are not permitted on any class car during competition. Tires will be visually checked for condition, pressure, and must be considered safe by the Technical Committee prior to any runs by the car. Recapped tires are prohibited. All street tires must have a minimum of 1/16" tread depth. Each car in competition must be equipped with automotive type wheels with a minimum 12" diameter, unless class requirements stipulate otherwise. Motorcycle wheels or light weight automotive wire wheels must be equipped with .100 inch minimum diameter steel spokes, properly cross-laced to provide maximum strength. All spoke holes in rim and hub must be laced. Omissions to lighten wheels are not permitted. A minimum tire pressure may be enforced by the Technical Committee at any time. A maximum of two (2) inch offset will be allowed in TF, PFD,PNFC and TD front axle. All other classes will be allowed one inch offset. All wheel studs must project through wheel both front and rear when recessed after market nuts are used. All wheel studs must project through lug nut when stock nut is used. Titanium wheel studs are prohibited on entries in TF, PFD, and PNFC . Vehicles with missing studs will be prohibited from competition.

Metal screw-in valve stems mandatory in tubeless tires front and rear of all entries running 11.99 and quicker 1/4 mile or 7.49 and quicker 1/8 mile. All cars running in TF, PFD and PNFC, all altered cars, and all Dragster Divisions must use an approved racing tire on front as well as rear of car.

WINDOW NET: If class mandates a roll cage the entry must have an SFI 27.1 safety net properly attached. Net must be secured on inside of roll cage at the bottom. The bottom can be attached with a 7/16" rod through the net, hose clamped to cage. The top may be clipped to eye bolts installed to roll bar. Net must fasten at the top and be permanently mounted to bottom. Net must extend forward to within two inches of the farthest back portion of the steering wheel.

WINDSCREENS: On open-bodied cars, or any other class car permitted to enter competition without a windshield, a metal, or other fireproof deflector must be installed. Minimum size on Street Roadster & Altered class cars is 5" x 12". The deflector should be so constructed that it will divert wind, liquids, foreign matter, etc., over the driver's head, be securely mounted, and installed in such a manner that it does not in any way obstruct the driver's frontal view.

WINDSHIELD & WINDOWS: Windshields, and/or windows on all competition vehicles, when listed under Class Requirements, must be OEM or of IHRA approved material. Vehicles equipped with OEM style glass must ensure it is as supplied by the manufacturer and free of chips, cracks or holes.

SPECIFICATIONS

Following is a list of all Specifications applicable to IHRA Drag Racing, with respective expiration periods. An item with an expiration period must be returned to the original manufacturer for inspection and recertification at the end of this period before it can be permitted for further use at an IHRA event. Specifications are available from the SFI Foundation. Phone: 858.451.8868 Internet: www.sfifoundation.com

SFI EXPIRATION

SPEC. NO.	DESCRIPTION	EXPIRATION
1.1	Replacement Flywheels and Clutch Assemblies	2 Years
1.2	Multiple Disc Clutch Assemblies	2 Years
1.3	Nitro Methane Drag Race Multiple Disc Clutch Assemblies	1 Year
1.4	Alcohol Drag Race Multiple Disc Clutch Assemblies	1 Year
1.5	Multiple Disc Clutch Assemblies for Supercharged, Nitrous Oxide-injected, and Turbocharged Vehicles	1 Year
2.1	Rear Engine Dragster Roll Cage - 6.29 and quicker	2 Years
2.2	Front Engine Dragster Roll Cage - 6.29 Seconds & Quicker	2 Years
2.3	Rear Engine Dragster Roll Cage - Top Fuel Entries	2 Years
2.4	Front Engine Dragster Roll Cage - 6.30 to 7.49 Seconds	2 Years
2.5	Rear Engine Dragster Roll Cage - 6.30 to 7.49 Seconds	2 Years
2.6	Front Engine Dragster Roll Cage - 7.50 Seconds & Slower	3 Years
2.7	Rear Engine Dragster Roll Cage - 7.50 Seconds & Slower	3 Years
3.2	Fire Protection Material (Technical Bulletin)	N/A
3.2A	Driver Suits/1,/3,/5	N/A
3.2A	Driver Suits/10,/15,/20	5 Years
3.3	Driver Accessories	N/A

4.1	.....Automatic Transmission Shields (rigid).....	5 Years
4.1	.....Automatic Transmission Shields (flexible).....	2 Years
6.1	.....Containment Bellhousing for SFI 1.1 & 1.2 two disc maximum Clutch Assemblies used only on naturally aspirated vehicles	5 Years
6.2	.....Containment Bellhousing for SFI 1.3 & 1.4 Clutch Assemblies.....	2 Years
6.3	.....Containment Bellhousing for SFI 1.2,1.4 or 1.4	2 Years
7.1	.....Lower Engine Containment Device	1 Year
8.1	.....Remote Fuel System Drive Assembly	N/A
9.1	.....Front Wheel Drive Vehicle Bellhousing Shields	5 Years
10.1	.....Funny Car Roll Cage	2 years
10.2	.....Funny /Altered Car Roll Cage 6.00 to 7.49.....	2 years
10.3	.....Funny /Altered Car Roll Cage 7.49 and slower	3 years
10.4	.....Slide Steer Roadster 7.49 and slower.....	3 years
10.5	.....Nitro Funny Car Roll Cage	2 year
14.1	.....Supercharger Restraint Devices	2 Years
14.2	.....Alcohol Supercharger Restraint Devices	2 Years
14.21	.....Screw-Type Supercharger Restraint Devices	2 Years
14.3	.....Nitro-Methane Fuel Supercharger Restraint Devices	2 Years
14.4	.....Containment Valve Covers/Valve Cover Shields	2 Years
15.1	.....Drag Race Drive Wheels	N/A
15.2	.....Drag Race Front Wheels	N/A
15.3	.....Top Fuel and Funny Car Drag Race Drive Wheels	N/A
16.1	.....Driver Restraint Assemblies	2 Years
17.1	.....On Board Fire Extinguishing Systems	N/A
18.1	.....Crankshaft Hub Harmonic Dampers	N/A
21.1	.....Power Turbine Containment Device	2 Years
23.1	.....Supercharger Pressure Relief Assemblies	2 Years
24.1	.....Youth Helmets	N/A
25.1	.....Full Bodied Car, Tube Chassis Roll Cage - 7.49 Seconds and Quicker; 2,800 Lbs. Maximum	2 Years
25.2	.....Full Bodied Car, Tube Chassis Roll Cage - 7.49 Seconds and Quicker; 3,200Lbs. Maximum	2 Years
25.3	.....Full BodiedCar, Tube Chassis Roll Cage - 6.50 Seconds and Slower; 3,600 Lbs. Maximum	2 years
25.4	.....Full Bodied Car Tube Chassis Roll Cage - 7.50 to 8.49 Seconds; 3,600 Maximum	3 Years
25.5	.....Full Bodied Car Stock or Modified/OEM Floorpan and Firewall with OEM Frame or Uni-Body Construction - 7.50 to 8.49 Seconds; 3,600 Lbs. Maximum	3 Years
27.1	.....Window Nets (Mesh).....	2 Years
27.1	.....Window Nets (Ribbon).....	NA
28.1	.....Fuel Cells	N/A
29.1	.....Automatic Transmission Flexplates	3 Years
30.1	.....Automatic Transmission Flexplate Shields	5 Years
31.1	.....Flame Resistant Open Face Motorsport Helmets (SA)	N/A
31.2	.....Flame Resistant Closed Face Motorsport Helmets (SA)	N/A
34.1	.....Screw-Type Superchargers	3 Years
37.1	.....Roll Cage Nets	N/A
38.1	.....Head and Neck Restraint System	N/A
40.1	.....Abrasion Resistant Driver/Rider Suites	N/A
41.1	.....Open Face Motorsport Helmets SN (M Rating).....	N/A
41.2	.....Closed Face Motorsport Helmets SN (M Rating).....	N/A
42.1	.....Steering Wheel Quick Disconnect/Release.....	N/A
45.1Roll Cage Padding	N/A
46.1Nitro-Methane Fuel Motorcycle Engine Restraint Device.....	N/A

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