

# SFI SPECIFICATIONS

Following is a list of all SFI Specifications applicable to NHRA Championship 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 NHRA event. Unless otherwise noted in this Rulebook, refer to SFI Foundation.com for the latest version of all non-chassis specifications. Also, unless otherwise noted in this document, refer to TechConn.NHRA.com for the latest SFI chassis specification versions. Note: Only certified NHRA chassis inspectors and authorized NHRA officials have access to TechConn.NHRA.com.

SFI SPEC	DESCRIPTION	EXPIRATION PERIOD
1.1	Single-Disc Clutch & Flywheel Assembly . . . . .	2 years
1.2	Multi-Disc Clutch & Flywheel Assembly E.T. through Comp, PS . . . . .	2 years
1.3	Multi-Disc Clutch and Flywheel Assembly TAD, TAFC, TF, and FC . . . . .	1 year
1.4	Multi-Disc Clutch and Flywheel Assembly TAD and TAFC. . . . .	1 year
1.5	Multi-Disc Clutch Assembly (with Power Adders). . . . .	1 year
2.1	Rear-Engine Dragster Chassis Spec, TAD (Includes Wing and Rear-End Mounting) . . . . .	1 year
2.2	Front-Engine Dragster Chassis Spec, NTF, TAD . . . . .	1 year
2.3	Rear-Engine Dragster Chassis Spec, TF (Includes Wing and Rear-End Mounting) . . . . .	1 year
2.4	Front-Engine Dragster Chassis Spec, Advanced E.T., A/D, B/D, C/D, A/ED, B/ED, A/ND, & B/ND . . . . .	3 years
2.5	Rear-Engine Dragster Chassis Spec, Adv. E.T. . . . . A/D, B/D, C/D, D/D, A/ED, B/ED, C/ED, & D/ED (Does Not Include Wing or Rear-End Mounting) . . . . .	3 years
2.6	Front-Engine Dragster Chassis Spec, 7.50 and Slower . . . . .	3 years
2.7	Rear-Engine Dragster Chassis Spec, 7.50 and Slower . . . . .	3 years
3.2A/1	Jacket (and Pants Where Applicable)	
3.2A/5	Jacket (and Pants Where Applicable)	
3.2A/15	Jacket and Pants or Suit . . . . .	.5 years, including the year on the tag
3.2A/20	Driver's Suit . . . . .	.5 years, including the year on the tag
3.2A/25	Driver's Suit . . . . .	.5 years, including the year on the tag
3.2A/30	Driver's Suit . . . . .	.5 years, including the year on the tag
3.3	Neck Collar and Head Sock	
3.3/1	Gloves, Shoes	
3.3/10	Helmet Skirt, Gloves	
3.3/5	Gloves, Shoes, Boots	
3.3/15	Gloves, Boots	
3.3/20	Gloves, Boots	
4.1	Automatic Transmission Shield, Rigid . . . . .	.5 years
4.1	Automatic Transmission Shield, Flexible . . . . .	2 years
6.1	Flywheel Shield, Spec 1.1 & 1.2 (2-Disc Max, or 3-Disc, 8-Inch Dia. Max) . . . . .	.5 years
6.2	Flywheel Shield, Spec 1.2, 1.3, 1.4 & 1.5 Clutch . . . . . (Check with Manufacturer; May Be Only 1 Year)	2 years
6.3	Flywheel Shield, Spec 1.2, 1.3 & 1.4 Clutch . . . . . (Check with Manufacturer; May Be Only 1 Year)	2 years

<b>SFI SPEC</b>	<b>DESCRIPTION</b>	<b>EXPIRATION PERIOD</b>
7.1	Lower Engine Ballistic/Restraint Device . . . . .	1 year
7.2	Lower Engine Ballistic/Restraint Device . . . . .	5 years
10.1	Altered & F/E Dragster Chassis Spec, TAFC . . . . .	1 year
10.2	Altered Chassis Spec, 6.00 to 7.49 . . . . .	3 years
	Adv. E.T., AA/A, BB/A, AA/AT, BB/AT, A/A, B/A . . . . .	3 years
10.3	Altered Chassis Spec, 7.50 and slower . . . . .	3 years
10.4	Side-Steer Roadster Chassis Spec., 9.99 and quicker . . .	3 years
10.5	Funny Car Chassis Spec, FC . . . . .	1 year
14.1	Supercharger Restraint (Roots) . . . . .	2 years
14.2	Supercharger Restraint (Roots) . . . . .	2 years
14.2.1	Supercharger Restraint (Screw-Type) . . . . .	2 years
14.3	Supercharger Restraint (Top Fuel) . . . . .	2 years
14.4	Valve Cover Restraint . . . . .	2 years
14.5	Manifold Blankets . . . . .	2 years
15.1	Rear-Drive Wheels, TAD, TAFC, and PS	
15.2	Front Wheels	
15.3	Rear-Drive Wheels, TF and FC . . . . .	2 years
15.4	Rear-Drive Wheels, TF and FC . . . . .	1 year
16.1	2- or 3-Inch Driver Restraint System . . . . .	2 years
16.5	2- or 3-Inch Driver Restraint System . . . . .	2 years
17.1	Onboard Fire Extinguishing Systems . . . . .	2 years
18.1	Harmonic Balancer	
23.1	Manifold Burst Panel	
24.1/2010	Youth Full-Face Helmet (for JDRL only) . . . . .	exp. 1/1/2022
24.1/2015	Youth Full-Face Helmet (for JDRL only) . . . . .	exp. 1/1/2027
25.1	SFI Full Body Chassis Spec, Pro Stock . . . . .	1 year
	Adv. E.T. . . . .	3 years
25.2	SFI Full Body Chassis Spec, 3,200-Pound Maximum . . . .	3 years
25.3	Full-Bodied Car, Tube Chassis Roll Cage 6.50-7.49, 3,600-Pound Maximum . . . . .	3 years
25.4	Full-Bodied Car, Tube Chassis Roll Cage 7.50-8.49, 3,600-Pound Maximum . . . . .	3 years
25.5	Full-Bodied Car, with OEM Frame 7.50-8.49, 3,600-Pound Maximum . . . . .	3 years
27.1	Window Net . . . . .	2 years
28.1	Fuel Cell: Pro Stock, Pro Modified, Advanced E.T.	
29.1	Automatic Transmission Flexplate . . . . .	3 years
30.1	Automatic Transmission Flexplate Shield . . . . .	5 years
31.1/2010	Full-Face Helmet . . . . .	exp. 1/1/2022
31.1/2015	Full-Face Helmet . . . . .	exp. 1/1/2027
34.1	Supercharger, Screw-Type . . . . .	3 years
38.1	Head and Neck Restraint System . . . . .	5 years
40.1/1, 40.1/2	Motorcycle Rider's Suit	
41.1/2010	Open-Face Helmet . . . . .	exp. 1/1/2022
41.1/2015	Open-Face Helmet . . . . .	exp. 1/1/2027
42.1	Steering-Wheel Hub	
43.1	Driveshaft	
45.1	Roll-Bar/Cage Padding	
49.1	Top Fuel Rear Wing Assembly . . . . .	1 year
49.2	Top Fuel Front Wing Assembly . . . . .	1 year
54.1	Nonflammable, Thermal Barrier/Fire Extinguishing Coatings	

Item	6.00 to 7.49	7.50 to 9.99	10.00 to 10.99	11.00 to 11.49	11.50 to 13.99	14.00 & Slower	Expiration
Master Electrical Cutoff Switch	Y	Y	8:4 / 135 mph	8:4	8:4	8:4	
Neck Collar (SFI 3.3)	Y	Y	10:8	10:8	10:8	10:8	
NHRA Competition License	Y	Y	10:4	10:4	10:4	10:4	
NHRA Chassis Sticker	Y	Y	4:4	4:4	4:4	4:4	
Padding Roll Bar/Cage	Y / SFI	Y / SFI	Y / SFI	Y	10:6 / 135 mph	10:6 / 135 mph	
Parachute	Y	Y / 150 mph	4:8	4:8	4:8	4:8	
Pressurized Bottles DOT (1800)	Y	Y	Y	Y	Y	Y	
Protective Clothing SFI 3.2A/15; 3.2A/20; 3.2A/25; 3.2A/30 Driver's Suit	Y	Y	Y	Y	10:10	10:10	5 years, incl. year on tag
Roll Bar			Y	Y	C / 13.49	4:10	
Roll Cage	Y	Y	Y / 135 mph	4:11	4:11	4:11	
SFI Chassis Specification SFI 2.1; 2.2; 2.3; 10.1; 10.5; 25.1 Full Body Chassis Spec; Pro Stock SFI 2.4; 2.5; 2.6; 2.7; 10.2; 10.3; 10.4; 25.1 Adv. E.T.; 25.2; 25.3; 25.4; 25.5	Y	4:4 / 180 mph	4:4	4:4	4:4	4:4	1 year 3 years
Supercharger Restraints (SFI 14.1; 14.2; 14.21; 14.3)	Y	1:11	1:11	1:11	1:11	1:11	2 years
Taillight	Y	Y	Y	Y	Y	Y	
Transmission Flexplate (SFI 29.1)	Y	Y	2:14	2:14	2:14	2:14	3 years
Transmission Locking-Type Dipstick	Y	Y	Y				
Transmission Reverse Lockout	Y	Y	Y	Y	Y	Y	
Transmission Shield (SFI 4.1)	Y	Y	Y	2:14	2:14	2:14	Rigid, 5 yrs.; Flexible, 2 yrs.
Window Net Full-Bodyed Cars	Y	Y	6:3 / 10:3	6:3 / 10:3	6:3 / 10:3	6:3 / 10:3	

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## 2018 NHRA E.T. QUICK REFERENCE CHART & SFI EXPIRATIONS

Y = Required • C = Convertibles • Numbers Refer to General Regulations • Years Refer to SFI Expirations • In no way is this Quick Reference Chart intended to supersede or replace the current NHRA Rulebook (quarter-mile e.t.s)

Unless otherwise noted in this E.T. Quick Reference Chart, refer to SFIFoundation.com for the latest version of all non-chassis specifications. Also, unless otherwise noted in this document, refer to TechConn. NHRA.com for the latest SFI chassis specification versions. Note: Only certified NHRA chassis inspectors and authorized NHRA officials have access to TechConn.NHRA.com. 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 NHRA event.

Item	6.00 to 7.49	7.50 to 9.99	10.00 to 10.99	11.00 to 11.49	11.50 to 13.99	14.00 & Slower	Expiration
Aftermarket Rear Axles	Y	Y	Y	2:11	2:11	2:11	
Arm Restraints (Open-Bodyed Cars)	Y	Y	Y	Y	10:3 / 11.99	10:3	
Bellhousing (SFI 6.1; 6.2)	Y	Y	Y	Y	2:10	2:10	
Driver Restraint System (SFI 16.1; 16.5)	Y	Y	Y / 10:5	Y / 10:5	C / 10:5	10:5 / 10:11	2 years
Driveshaft Loop	Y	Y	Y	Y	2:4	2:4	
Electric Vehicle 16.00 & Quicker	Y	Y	Y	Y	Y	2:4	
Flexplate Shield (SFI 30.1)	Y	Y	2:14	2:14	2:14	2:14	5 years
Flywheel/Clutch (SFI 1.1; 1.2) SFI 1.1: Single-Disc Clutch & Flywheel Assembly, 1.2: Multi-Disc Clutch & Flywheel Assembly E.T. through Comp, PS	Y	Y	Y	Y	2:5	2:5	2 years
Flywheel Shield (SFI 6.1; 6.2; 6.3; 9.1) SFI 6.1: Flywheel Shield, Spec 1.1 & 1.2 (2-Disc Max. or 3-Disc, 8-inch Diameter Max.)	Y	Y	Y	Y	2:10	2:10	5 years
SFI 6.2: Flywheel Shield, Spec 1.2, 1.3, 1.4 & 1.5 Clutch (Check with Manufacturer; May Be Only 1 Year)							2 years
Harmonic Balancer (SFI 18.1)	Y	Y	Y	Permitted	Permitted	Permitted	
Head & Neck Restraint Device/System (SFI 38.1)	Y	10:8 / 200 mph	10:8	10:8	10:8	10:8	5 years
Helmet SFI 24.1/2010; 31.1/2010; 41.1/2010; Snell 2010 SFI 24.1/2015; 31.1/2015; 41.1/2015; Snell 2015	Y	Y	Y	Y	Y	10:7	exp. 1/1/2022 exp. 1/1/2027
Liquid Overflow	Y	Y	Y	Y	Y	Y	

## Handy Charts and Formulas

- **Cubic Inch Displacement**  
CID = bore x bore x stroke x 0.7854 x number of cylinders
- **Horsepower** = (RPM x torque)/5,252
- **Torque** = (5,252 x HP)/RPM
- **Valve Area** = valve diameter x valve diameter x .7854
- **Rod Ratio** = rod length/crank stroke length
- **Average Piston Speed** = crank stroke x RPM/6
- **Rear Gear Ratio** = (RPM at finish line x tire diameter)/(MPH x 336)
- **Volume (cc's) of deck clearance**  
= bore x bore x 12.87 x depth of deck clearance
- **Volume (cc's) of head gasket**  
= bore x bore x 12.87 x thickness of head gasket

$$\text{Compression Ratio} = \frac{\text{comb chamber cc's} + \text{gasket cc's} + \text{deck CI cc's} + (\text{displacement} \times *2.0483)}{\text{comb chamber cc's} + \text{gasket cc's} + \text{deck CI cc's}}$$

\* 2.0483 for 8-cyl. \* 2.7311 for 6-cyl. \* 4.0967 for 4-cyl.

- **Circumference** =  $\pi \times \text{diameter}$
- **Area of circle** =  $\pi \times \text{radius}^2$
- **Volume of cylinder** =  $\pi \times \text{radius}^2 \times \text{height}$   
 $\pi = \pi i \quad \pi = 3.1416 \quad \text{radius}^2 = \text{radius} \times \text{radius}$

### Weights:

Oil	1 gallon = 7.0 pounds	1 quart = 1.75 pounds
Gas	1 gallon = 6.2 pounds	1 quart = 1.55 pounds
Water	1 gallon = 8.4 pounds	1 quart = 2.10 pounds

## Metric and Standard Conversion

The metric system is a decimal system of measurements used in scientific work for measuring length, weight, and volume. These basic units are modified with prefixes to express the units as larger or smaller quantities. Some of the common prefixes are:

Kilo: one thousand (1000)

Deci: one-tenth (0.1)

Centi: one-hundredth (0.01)

Milli: one-thousandth (0.001)

Micro: one-millionth (0.000001)

### Length

1 kilometer (km) = 1,000 meters = 3,280.83 feet = .6215 mile

1 meter (m) = 100 centimeters = 39.37 inches = 1.09 yards

1 decimeter (dm) = 3.937 inches

1 centimeter (cm) = .3937-inch

1 mile = 1.609 kilometers

1 inch = 2.54 centimeters

1 yard = .91 meters

1 inch = 25.4 millimeters

### Mass

1 kilogram (kg) = 1,000 grams (g) = 2.2045855 pounds

1 pound = 453.6 grams

1 ounce = 28.35 grams

1 gram = 1,000mg

kilograms x 2.20 = pounds

pounds / 2.20 = kilos

### Volume

1 liter (l) = 1,000 cubic centimeters (cc) = 61.025 cubic inches

1 cubic inch = 16.387 cubic centimeters