



# 2024

## Tech Inspection In Detail

v2024.01.01

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( • ) *Represents Law Per Official Rule Book.*

( \* ) *Example info.*

## SECTION 2: GENERAL MACHINE REQUIREMENTS

### 2.1: Main Frame

- The main frame is considered as any structure that joins the steering tube, engine and swing-arm pivot. If the steering tube, engine mounts or swing-arm is connected through a removable bracket (with engine removed) then those brackets will be considered as part of the main frame. If the steering tube, engine mounts and rear swing-arm pivot connect to the main frame without removable brackets, then any additional brackets will not be considered as part of the main frame. **If there are any parts in question, the Race Director's decision is final.**



- If the rear section (rearward of the engine, meant for the rider's seating) of a frame is not removable then there is no rear sub-frame and only a main frame. Regulations applying to the rear sub-frame will not apply to the main frame.



- The use of titanium in the construction of the frame, front forks (titanium fork springs are allowed), handlebars, swing arm, swing arm spindles and the wheel spindles is forbidden. For wheel spindles, the use of light weight alloys is also forbidden. The use of titanium alloy nuts and bolts is allowed **in certain classes specified in their respective sections.**

## 2.2: Handlebars and Control Levers

- The front wheel, tire and the mudguard must maintain a minimum gap of 10 mm from any part of the machine that can cause binding, regardless of the handlebar position.
- Repair by welding of light weight alloy handlebars is prohibited.
- **Composite handlebars are not allowed in any class.**
- All handlebar levers (clutch, brake, etc.) must be ball ended. The diameter of this ball is to be at least 16 mm. This ball can also be flattened in any case but the edges must be rounded. The minimum thickness of this flattened part is to be 14 mm. These ends must be permanently fixed and form an integral part of the lever.
- Each control lever (hand and foot levers) must be mounted on an independent pivot.



\* Ball End & Pivot

- The brake lever, if pivoted on the footrest axis, must work under all circumstances, such as the footrest being bent or deformed.



- **Modified rider controls will be considered for the mobility impaired pursuant to a report and approval by the Race Director. The Race Director's decision is final.**

- **Brake lever guard is mandatory. Clutch lever guard is allowed but not mandatory.**
- Motorcycles must be equipped with brake lever protection, intended to protect the handlebar brake lever from being accidentally activated in case of collision with another motorcycle.



## 2.3: Bodywork

- Lower fairing must include a fluid retention belly pan that will hold all of the oil and coolant in the motorcycle. Foil “turkey pans” will not be allowed.



- All body work pertinent to the bike must be securely fastened

### THE FOLLOWING ITEMS MUST BE REMOVED

- Headlamp, rear lamp and turn signal indicators (when not incorporated in the fairing). Openings must be covered by suitable materials
- Rear-view mirrors
- Horn
- License plate bracket
- Tool kit
- Helmet hooks and luggage carrier hooks
- Passenger foot rests
- Passenger grab rails
- Safety bars, center and side stand brackets welded to the main frame may be removed.
- Kickstand and/or center stand must be removed
- All lights and mirrors must be removed
- Any “spiked” hardware (fairing screws, bar ends, windscreen bolts, etc..)



## 2.4: Fluids, Filters & Guards

- **Oil Filter:** **OEM replacement oil filters ONLY!** No aftermarket oil filters will be allowed.
- **Coolant:** Distilled water, Redline - Water Wetter, Motul race coolant, and Maxima Cool-Aide are allowed as coolant.
- **Radiator Guard required**



- **Oil Cooler Guard required** : if applicable





- **Engine Guards:** Aftermarket engine case guards or case covers are required for all motorcycles (unless not currently available).



- **Toe Guard:** A solid protective cover (shark fin) shall be securely fixed (bolted or riveted, bonding permitted with the approval of the Technical Director) to the swing- arm and must always cover the opening between the lower chain run, swingarm and the rear wheel sprocket, irrespective of the position of the rear wheel.



\* The above swing arm meets Toe Guard requirement.

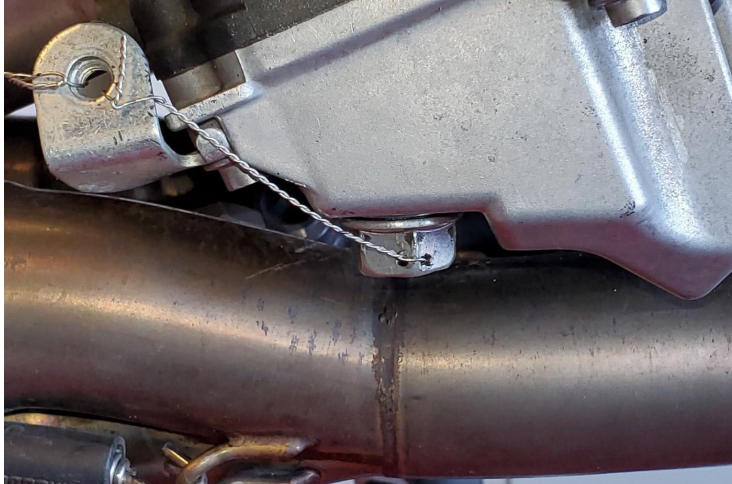
- **Fasteners:** All fasteners must meet factory torque specification. If any fasteners (i.e. axles, pinch bolts, brake calipers, etc.) are found to be loose while on the race course the competitor will be subject to penalties.
- **Breather / Overflow:** Where breather or overflow pipes are fitted, they must discharge via existing outlets. The original closed system must be retained (catch can); no direct atmospheric emission is permitted.

## 2.5: Safety Wire Requirements

Safety wire shall be installed in such a manner as to make the nut, bolt, clamp "TIGHTEN" itself. The safety wire should come around the top of the bolt/nut head and back onto the securing unit so that the safety wires PULL is in a tightening direction. Else attachment to hose or clamp shall be made to not allow aftermarket hose clamps to loosen itself.

### The following must be safety wired:

- Oil drain bolt

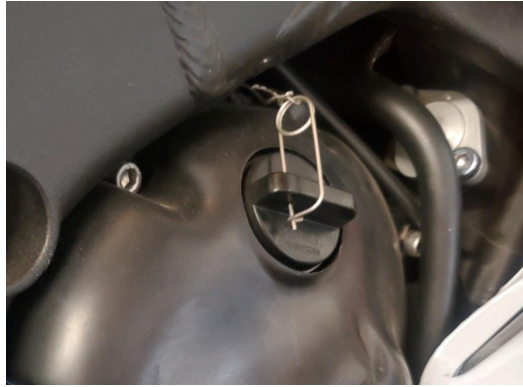


- **Oil filter (Hose Clamp)** Hose clamp must be wired to itself to not loosen. Then clamp must be wired to a stationary part to not allow the clamp/filter assy. to loosen.





- Oil filler cap



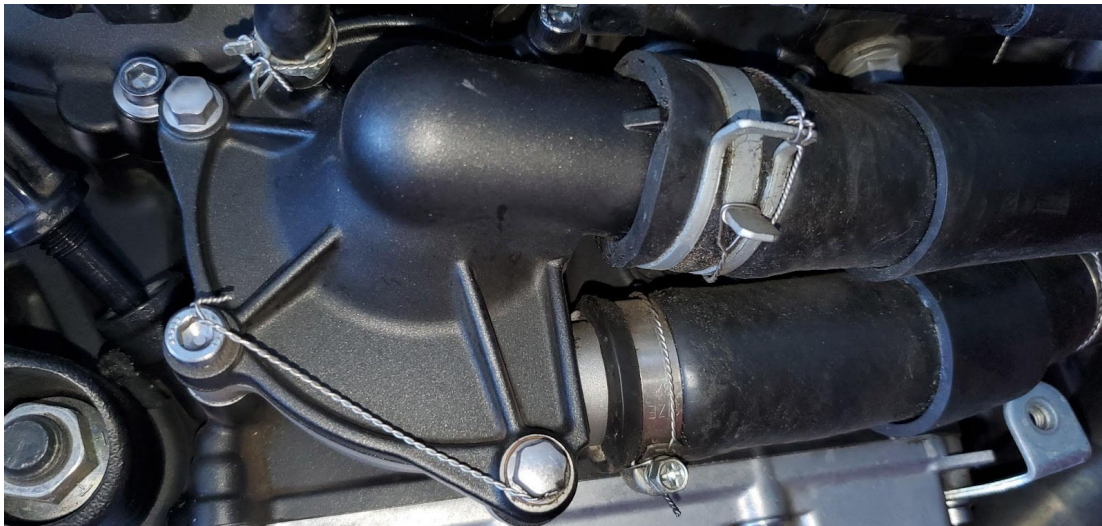
- Oil cooler bolt (eg. Yamaha R6)



- Radiator cap



- Water pump drain plug

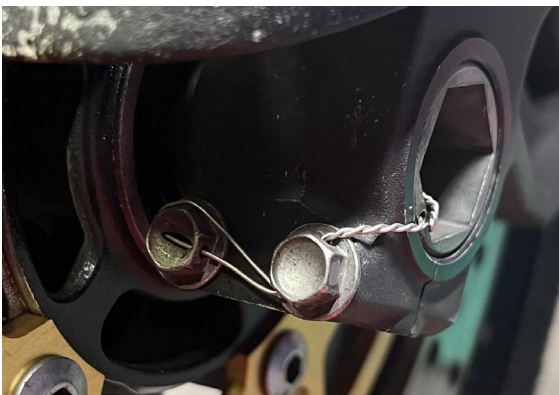
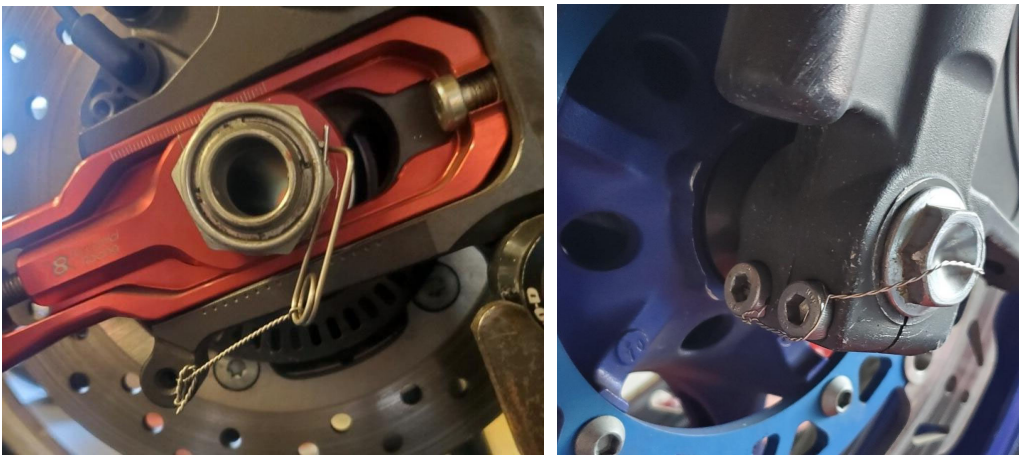


\* Water Pump drain plug, bolts & hoses.

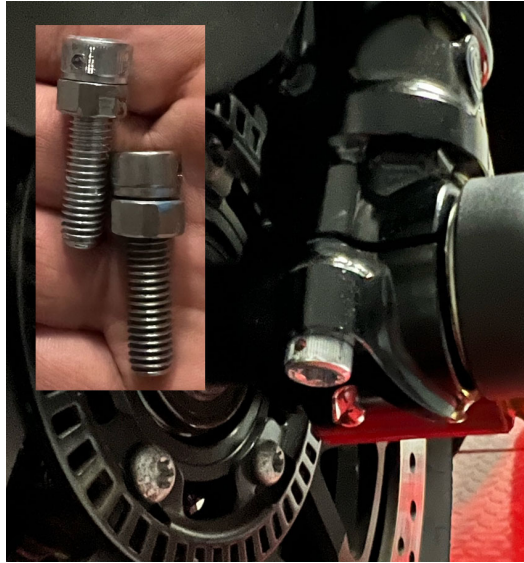
\* RTV silicone is an acceptable replacement for safety wire in specific locations. Silicone must be fully cured prior to tech inspection. RTV is only permitted to exist in locations that will not require continuous removal.

Example: Brake Line Bolt(s), Oil Cooler Bolt.

- **Axles and/or axle nuts**, except in the case of axle sliders that prevent the safety-wiring of axles/axle nuts.
- **Fork pinch bolts** (all)

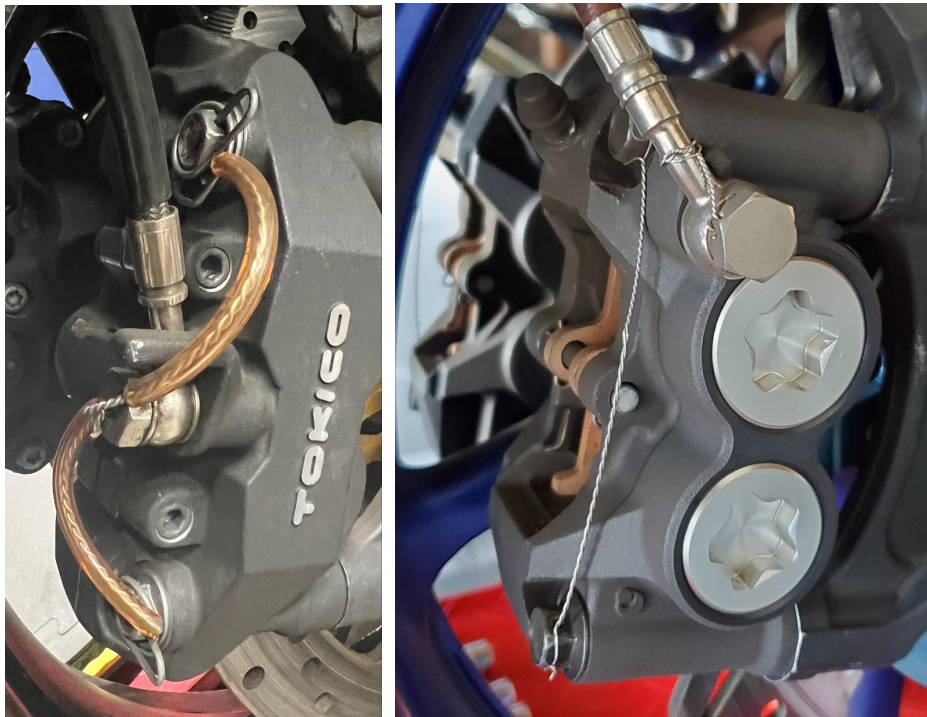






*\* Pinch bolt fix for receded bolts.*

- **Caliper bolts.**



*\* Calipers & Brake Line/Bolt RTV Silicone is ok to use on Brake line bolts*

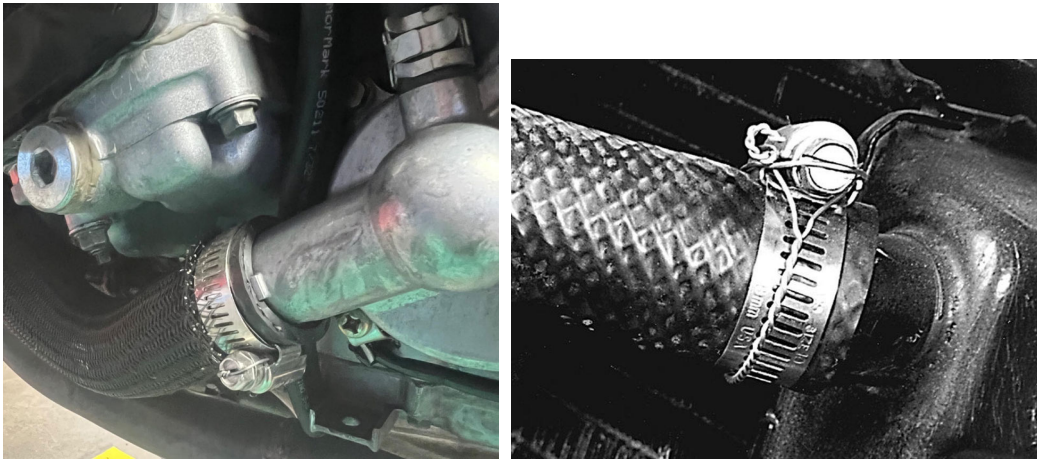
- **Video Camera** - Must wire/tether camera to the bike.

*\* Camera shall be tethered in such a manner as to not allow the camera itself from leaving the bike in a normal situation. Tethering the camera mount is not sufficient. Tether must connect to the Camera itself or camera case/holder then to a solid mounting point.*

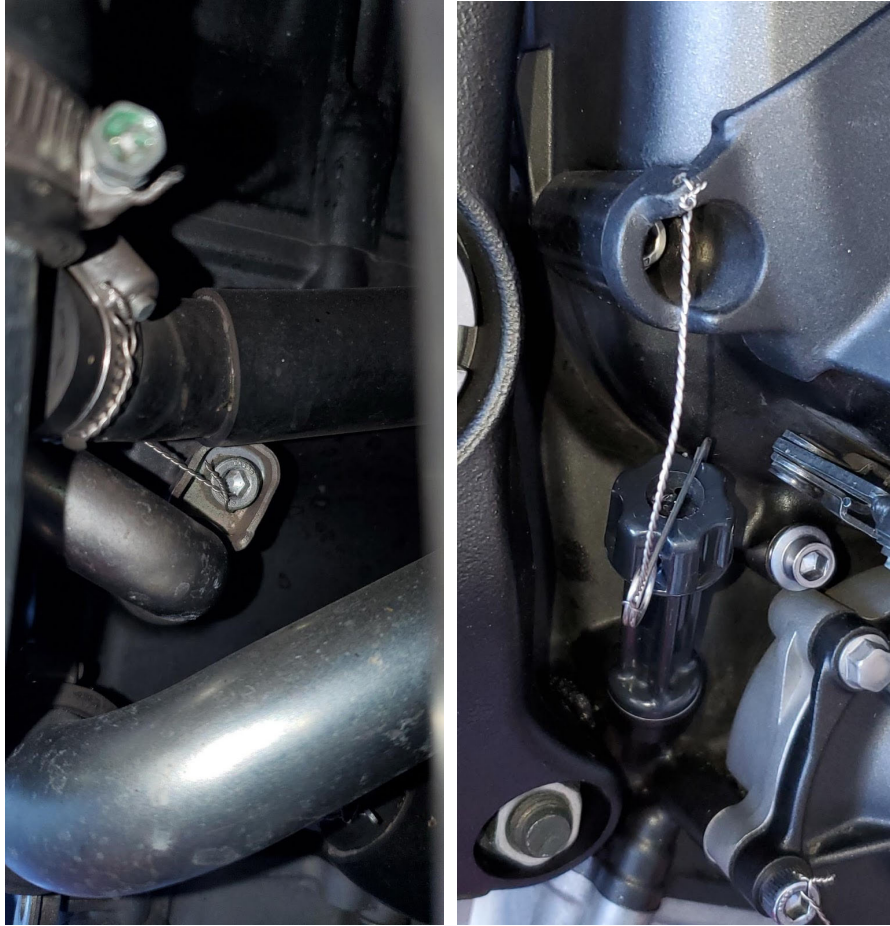


- Any bolt or hose that carries or returns oil.

*\* Factory hose clamp(s) safety wire is not required as long as clamp is of satisfactory condition.*







\* Oil Return Line & Dipstick



*\* Rear Brake line bolt. RTV Silicone is ok to use on Brake line bolts*

## 2.6: Timekeeping Instruments

All motorcycles must have a correctly positioned timekeeping transponder. Riders must provide their own transponder, or rent one from CRA. The transponder must be approved by the official timekeeper. See CRA for compatible models. The transponder should be fitted centrally on the machine, as low to the ground as possible, and avoid being shielded by bodywork. The manufacturer's suggested direction of the transponder should also be respected. **It is the racer's responsibility to ensure that the transponder is located in an optimal position and working properly.** Any machine without a working transponder may not be scored. Correct attachment of the transponder bracket consists of a minimum of tie-wraps but preferably consists of screws or rivets. Any transponder retaining clip must also be secured by a tie-wrap. **Velcro or adhesive alone will not be accepted.** The transponder must be working at all times during practices, qualifying, and races.





## 2.7: Race Numbers

Race numbers must be legible to the race scorers and corner workers. Race numbers **must be visible from the front and sides (or tail section)** of the motorcycle.

If they cannot be seen, you may not be scored, and as a result, may be required to manually score a race by the race director. Numbers being legible and properly placed are for your safety. These numbers also help identify the riders on track.

Only run YOUR CRA race number. If for any reason you're to "test" or ride another competitor's bike, you must let the race director know to inform course control before you go out.

Numbers must be a minimum of 6" tall and black in color. White or yellow background must extend at least 1" past the edge of the race number.

**Amateurs** - Black Numbers on Yellow Background



**Experts** - Black Numbers on White Background



**Reciprocity** - either run a new number, or work with registration to run the number from your home organization with an **X at the end**. CRA Officials Approval required.

**Any and all exceptions to the rules set forth above will require** pre-approval from the Race Director (i.e. - running your MotoAmerica number plate).

*\* Examples of incorrect race number plates, layouts & colors requiring pre-approval.*



## 2.8: Technical Inspection

All motorcycles being entered in a CRA race event will be visually safety inspected prior to being allowed on the track. Tech inspection is required only once per race weekend unless the machine suffers a crash or mechanical failure. In the event of a crash, your tech inspection sticker will be pulled and re-inspection of the machine must occur before being allowed to resume additional practices or races.

### **Lower must be removed for tech inspection.**

*\* If the bike has a metal belly pan e.g., baggers, leave the pan on so the inspector can view the mounting method(s).*

The Tech Inspector is to visually verify that a racer's machine meets the safety requirements set forth in this Rulebook in addition to compliance with general machine requirements and class requirements. Tech Inspectors may notice something on the machine would make it illegal for certain classes based on the rules set forth herein and require the racer to modify, remove or alter in order to pass tech inspection. **It is the racer's sole responsibility to ensure that his/her bike is legal to race in the classes entered.**

### **Helmets also will be inspected.**

Falsification or misuse of Tech stickers shall subject the rider to potential disqualification from the race weekend. Excessively dirty motorcycles will not pass tech inspection until cleaned properly so Tech Inspectors can visually inspect the motorcycle.

### **Bring to Tech : Normal**

- Helmet
- Bike
- Lower: ( off bike ) / baggers belly pan: (mounted)
- Completed [Technical Inspection Checklist](#)

### **Bring to Tech : Crash**

- Helmet
- Gloves
- Bike
- Lower: ( off bike ) / baggers belly pan: (mounted)

# CRA Technical Inspection Checklist

Available for Download here: [Technical Inspection Checklist](#)



## CRA Technical Inspection Checklist

Printed Name: \_\_\_\_\_ Race Number: \_\_\_\_\_

Signature: \_\_\_\_\_

	Racer Check	Technical Inspection Check
<b>GOLD CUP RACE</b> <input type="checkbox"/>		
Sponsor Stickers	<input type="checkbox"/>	<input type="checkbox"/>
<b>BRAKES</b>		
Functional Front and Rear Brakes	<input type="checkbox"/>	<input type="checkbox"/>
RTV Silicone on Banjo Bolts or safety wire	<input type="checkbox"/>	<input type="checkbox"/>
<b>BODYWORK</b>		
Fluid Retention Belly Pan (Bring to Tech)	<input type="checkbox"/>	<input type="checkbox"/>
<b>FLUIDS FILTERS &amp; GUARDS</b>		
OEM Oil Filter	<input type="checkbox"/>	<input type="checkbox"/>
Distilled Water, Redline Water Wetter, Motul Race Coolant, Maxima Cool-Aide	<input type="checkbox"/>	<input type="checkbox"/>
Radiator Guard	<input type="checkbox"/>	<input type="checkbox"/>
Oil Cooler Guard (If applicable)	<input type="checkbox"/>	<input type="checkbox"/>
Engine Case Covers (unless not currently available)	<input type="checkbox"/>	<input type="checkbox"/>
Toe Guard	<input type="checkbox"/>	<input type="checkbox"/>
<b>SAFETY WIRE</b>		
Oil Drain Bolt	<input type="checkbox"/>	<input type="checkbox"/>
Oil Filter	<input type="checkbox"/>	<input type="checkbox"/>
Oil Filler Cap	<input type="checkbox"/>	<input type="checkbox"/>
Oil Cooler Bolt (If applicable)	<input type="checkbox"/>	<input type="checkbox"/>
Radiator Cap	<input type="checkbox"/>	<input type="checkbox"/>
Water Pump Drain Plug	<input type="checkbox"/>	<input type="checkbox"/>
Axles and/or Axle Nuts (Not Applicable if Axle sliders are used)	<input type="checkbox"/>	<input type="checkbox"/>
Fork Pinch Bolts	<input type="checkbox"/>	<input type="checkbox"/>
Front and Rear Caliper Bolts	<input type="checkbox"/>	<input type="checkbox"/>
Video Camera	<input type="checkbox"/>	<input type="checkbox"/>
Any bolt or hose that carries or returns oil	<input type="checkbox"/>	<input type="checkbox"/>
<b>RACE NUMBERS</b>		
Front	<input type="checkbox"/>	<input type="checkbox"/>
Tail or Side or Lower	<input type="checkbox"/>	<input type="checkbox"/>
Black Numbers on White Background (Expert)	<input type="checkbox"/>	<input type="checkbox"/>
Black Numbers on Yellow Background (Amateurs)	<input type="checkbox"/>	<input type="checkbox"/>
Numbers 6" Tall, Background 1" Past Numbers	<input type="checkbox"/>	<input type="checkbox"/>
<b>GEAR</b>		
Helmet Manufacturer date < 5 years from today's date?	<input type="checkbox"/>	<input type="checkbox"/>

