Recently, a DPF member asked DPF community members on what they should consider when outfitting their bike as a SHTF bug-out vehicle. So I decided to write up a quick PDF for you all to consider. Some of the items are my ideas, others are borrowed. In the end, I compiled it for our community. If you have other ideas, please give me them, and I will consider adding it to the PDF revise.

Survival Bicycle List of Considerations

Silent gears – No clicking while coasting (stealth)?

<u>Off-road versus On-road use</u>

Mountain bike?

Hybrid bike (See picture below)?

Beneficial to fit inside of your vehicle or trunk or on a carrier?

Folding frame (See picture below)?

Its design or practical ability to strap on some gear or to transport heavy objects or things

The ability to tow a small utility trailer designed for bicycles. Similar to this picture.

How many gear speeds?

Complexity of components and availability of replacement parts

How light does the frame need to be? Is this particularly important in this use-case?

Strength of frame

Is color important? (stealth?)

The proper frame size for your height and weight

The type of tires (tubeless?)

The more specialized or unique, the less parts you will find post-collapse

Most common brands and parts?

What type of lights do you place on the bike?

Price? Maybe get two cheaper bikes rather than one more expensive bicycle?

The 6 Essential Bike Tools

Ideally, proper bike tools should be on hand. The simplicity of the modern bicycle limits the reasonable number of tools needed for general maintenance to a pretty short list. It would be easy to argue that the most important tool is the one you need, but based on frequency of use, the must-have tools sort

themselves out fairly quickly.

1. Hex wrenches of 4, 5, and 6mm.
2. Socket or open-end wrenches of 8, 9, and 10mm.
3. Slotted and #2 Phillips screwdrivers.
4. Small air pump that works with both Schrader and Presta valves.
5. Inner tube patch kit containing patches, rubber cement, and sandpaper.
6. Chain tool. A nail and rock works too. Just don't punch the pin all the way out!

3 General-use Tools

1. Adjustable wrench (aka: Crescent wrench). My favorites is the Snap-On ADHW6 because even though it's only a 6-inch size, the jaws open larger than 1 ¼ inches.
2. 2. Slip-joint pliers. A good choice is the Knipex 8801180. This particular plier weighs only 6.3 ounces, but has jaws that open up to one an half

inches allowing it to grab many headset nuts. It is also narrow enough to tighten the 15mm pedal spindle.
3. A multi-tool like the Leatherman Wave with its accessory Bit Kit. It adds redundancy in some essential tools, adds a needle nose pliers, a metal file, a saw, and two knives.

A word about bicycle-specific multi-tools. While many of them are handy, they can have significant shortcomings as well over workshop-level tools. Many of the all-in-one tools seem to be designed more with artistic expression than functionality. A few notable issues include the drivers being too short, the shape or size of the tool prevents it from rotating in the available space, the lack of leverage, and the inability to use two tools at the same time. My suggestion is to supplement your tool kit with very simple bike-specific multi-tools rather than the 20-in-one Swiss Army type. It's maddening when the beer bottle opener on your bike tool impedes your ability to tighten the seat post.

A little knowledge of bike repair will make as big a difference as having the right tools, so thumb through a bike repair book to familiarize yourself with the bike parts and the adjustments. We all know the old saying about using the right tool for the job… when the right tool is available. But what if all you have is a rock? Well, most bike parts are made of soft metal so possibly the part could be bent or pounded back into service. Of course the lifespan of the component is reduced, but it's your life we're worried about, not the life of the left crank arm.

Stripping Abandoned or Disabled Bicycles for Survival Gear and Materials

Once the SHTF there will be all kinds of discarded items lying about that can be used for survival purposes. Even if you find yourself lost or stranded, you may find items discarded even in the most remote places. Bicycles and bicycle parts can be found virtually anywhere in the world and a bicycle can be a treasure trove of survival items.

1.) The Magneto/Batteries

Many bicycles today have headlights and taillights and in many municipalities around the world, lighting front and back is required before the bicycle can travel on roads or highways. The power source on older bikes may be a magneto or sometimes called a bottle dynamo because of its bottle shape.

The magneto is a small electrical generator for bicycles designed to power the bicycle's lights. The electrical generator uses permanent magnets to create pulses of alternating current (AC). The turbine uses friction to turn. It rests against the tire and turns when the tire does.

Older magnetos produce AC current. You can turn the bike upside down and spin the wheels by the pedals to create current that can be used to signal rescuers by activating the headlight/taillight.

With AC current, a short can be created to cause an electrical arc, which in some cases could be used to create fire. This method of fire starting requires considerable electrical current however, so it would not be considered a reliable method.

The horn if there is one can be used to signal for help as well

Newer bikes may have battery packs that are used to power the lights. Some bikes may even have so-called true dynamos that produce DC current to recharge the battery packs. The batteries can be used to create fire using steel wool, pieces of thin foil such as the foil used as gum wrappers, or thins strips of aluminum foil. The conductor must touch the positive and negatives side of the battery at the same time. Make sure you have dried tinder ready for when the conductor bursts into flames because of the current flowing through it.

2.) Headlight

The headlight glass can be used as a cutting tool, and the glass and headlight reflector can be used to start fires or used as a signal mirror.

3.) Bicycle Spokes

The spokes are heavy wire that will be difficult to cut but most wire cutters on a multi-tool can do the job. The heavy wire can be used for a variety of things. Bind three or four together after sharpening the tips to make a thrusting weapon. Use duct tape or Paracord to make a handle and once done you have an effective handheld weapon.

Use the spokes to create a fishing spear by securing three to the end of a stout sapling. The spoke ends can be sharpened and shaped like a small hook so your catch does not slip off after penetration.

The spokes of course can be used to create a spear for hunting small game as well. The stiff spokes can also be sharpened and secured at the bottom of a pit to impale small game that falls into the pit.

Use the spokes as spits or grates to cook food over your fire.

4.) Inner Tube

The inner tube can be used to transport water by cutting in two at the stem. Fill with water by holding one end up and pinching off, then secure the two ends to each other and carry the tube across the chest with the secured ends up.

You may be able to remove the valve stem by unscrewing the valve using the needle nose pliers on a multi-tool. Filling with water, this way would require that you submerge the stem in water. This is a time-consuming way of filling with water, but is a secure way of transporting water. Put the valve cap back on or replace the stem valve to keep the water from leaking out.

The powder inside the tube is usually talcum or in some cases cornstarch.

The tube can be cut into “ranger bands” that can be used to secure items to your pack or equipment or to bind poles together for shelter building. You can cut the tube long ways to create longer pieces to secure larger items together.

The rubber can also be used as a tourniquet or used to secure splints to limbs to immobilize them. In some cases depending on the quality and age of the rubber, you can use it to make a slingshot.

Pieces of the rubber can be burned to create signal smoke.

5.) Sprockets

If the sprocket (s) can be removed from the pedal, they can be attached to a sapling by splitting the end and securing the sprocket between the split. Push the sprocket down far enough so the top end of the split can be secured as well as the bottom of the split. If you have the time and means, you can sharpen the metal to create an even more deadly weapon. The sprockets can also be used as digging and prying tools.

6.) Mirror

Mirrors can be used to create fires and to signal rescue personnel, and for grooming purposes as well.

7.) Bicycle Chain

The chain can be used as a weapon and if heavily oiled or greased you may be able to harvest some of the lubricant for fire starting by soaking it up with some absorbent cloth and/or use it to lubricate and protect your other tools.

8.) Seat Post

Most seats are adjustable and the entire post that the seat rests on can be removed as well as the seat itself. The post is hollow and can be plugged on both ends by a wooden cork. Use it to transport water, rolled up maps or other items that would need protection from the elements. The post can of course be used as a weapon.

9.) Brake Cables

The cables are stranded wire, which can be unwound to some extent and used. The wire can be used for any number of things such as for snares, binding poles together for shelter, making repairs to gear and equipment and the list goes on. The wire will be stiff and difficult to work with so use the pliers on your multi-tool to manipulate the strands of wire.

10.) The Seat Itself

If you use your imagination, you can probably come up with several uses but the main component is the material itself that can be used for hand protection, making repairs to gloves, gear and even burned to create dark smoke for signaling.

If the seat is large enough, it can be used as a headrest for sleeping or even for sitting on inside your shelter. Leave the post on and secure the post in the ground to give yourself a small chair.

Use your imagination and come up with others uses for other parts of the bicycle that can be used in a survival situation.

When cash is not a consideration

A gun carrier should be a nice addition, here are some pics to consider, in this case, the carrier can be placed on the handle bar with some modification.

Rifle carrier:

Puncture Resistant Bike Tires: In the case of Texas, we have some very nasty thorns that adhere to the road and road side, enough force can even puncture a good vehicle tire. So opting for one of these ideas, is not a bad idea. I recently tested one of these on my road bike and found they were not too bad.

Last thoughts: I am no bike expert, you should consult a local dealer for the type of bike to consider when opting for a bug-out bike. A good dealer friend of mine placed these thoughts into my head, when I considered buying a set for my family. How often do you plan to ride them? Do you consider yourself an outdoor bike enthusiast, if so then consider buying a very high end bike, if not then get a general bike that will not break your bank and outfit it with high end carrying gear or a bike trailer. Add no expense when choosing a light, as he said, that becomes a primary resource when you are traveling at night, personally, I go tactical and use NVG's.

In the end, it's up to you to choose. Is this your sole bugout vehicle? If so then consider the high end.