

Bicycle Institute of South Australia – Notes on the Bikes for Refugees scheme.

These draft notes are for small, voluntary community organizations, interested in setting up a bike recycling scheme. They're organized like the FAQ section on a website. They're designed for browsing through - not reading through from one end to the other. They go with the article in Australian Cyclist magazine, November 2005

These are my own personal notes - not an official document or instruction book. Things change over time. Let me know of any errors, omissions, or comments. Use these notes at your own risk! If in doubt, contact me.

Please treat anything in here as a suggestion, not as advice, or as instructions. If the suggestion seems useful, feel free to use it. If not, just forget about it and keep looking!

Mike Brisco, 6 November 2005

Committee member, Bicycle Institute of S Australia (www.bisa.asn.au)
Email mike.brisco@flinders.edu.au



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In a nutshell

- For the last 2 years BISA has run a small scheme to recycle unwanted bicycles that are in good condition, for families recently arrived as refugees, and living in the Adelaide area.
- These people are often interested in getting bicycles, for themselves or children.
- The BISA scheme brings together:
 - people with bikes they no longer need;
 - people who want bikes, but would find it hard to get them;
 - members of BISA who like working with bikes
- We get around 120 bikes a year donated; we take details and organize collection runs.
- Most are from people who have bikes at home, but no longer ride them.
- Bikes from this source, are usually in OK condition, and can be made roadworthy quickly.
- BISA members volunteer their time to check, repair, clean, and road test each bike, before it goes out
- Over time we have salvaged a large collection of spare parts, to keep costs down. The most useful are tyres, tubes, saddles, and brake blocks. We often replace ones on bikes, with secondhand parts in better condition. Any other parts come from bikes that were scrapped. We also buy in new cables, cable housings, handlebar tape, etc.
- We hand on 80-100 on, repaired, serviced, tidy, cleaned, road tested, and roadworthy, to the Australian Refugee Association.
- ARA is a larger not-for-profit group, with experience in helping recently arrived refugee families. They ask families recently arrived what they need. ARA takes over our bikes, and delivers them to families who need them, free of charge.
- The scheme aims to be self-funding, but currently costs around \$5 per bike. Costs are kept low by donations of spare parts; bike shops that let us have parts at cheap rates; people who donate bikes in good condition they would otherwise sell secondhand, so we can raise funds.
- Work on the bikes: this is from BISA members, via their own work, and through working bees. We also have help from Hamilton Adult College, whose bike mechanics students, donate time to work on bikes.

Newly arrived families often ask about bikes!

The scheme exists, because refugees ask for bikes.

Australia takes around 12,000 refugees a year through its humanitarian migration program - some arrive directly from overseas with no contacts in Australia, others are sponsored in by family already here. It is worth repeating, this is an official migration program Australia has operated for many years. This gives these people a new chance in life, and support to help them get started here. Just to avoid confusion, it's worth repeating, this is an official program, and is by far Australia's largest intake of refugees. It is in addition to the much smaller numbers of people who try to get here by boat, without first registering with the UN as refugees, and without visas.

Some of the refugees who arrive through this major route, are single people or couples; others are families with children; others are unaccompanied children, either orphans, or those whose parents have sent them on to somewhere safer. These days many are from Africa.

Adelaide takes around 900 people a year. Many arrive with nothing other than their basic possessions, and will need help to set up home and settle here. In Adelaide there is a good system in place to help them do this, relying on a mix of community organizations, state and commonwealth government support, and individual volunteers. The government support is fairly thin. Other States would have similar arrangements.

The Australian Refugee Association - the not-for-profit group who handle the bikes we repair - tell us bikes are the things they get asked for most often. They could easily give away several hundred bikes a year.

ARA operates a program to collect and distribute secondhand goods to refugee families. ARA aims to meet all new families on or soon after arrival, and asks what they would like, and then does the best it can, to meet their needs. Our bikes form part of this program. Many people have ridden then overseas, and ask for them when they get here.

As cyclists we are always happy to see bikes put to good use, and to see people able to ride. For newly arrived families there are additional issues, that they often don't have driving licenses or cars, and thus may need transport. For children, it gives them something to do.

Amount of work per bike

2-3 hours work per bike, including collecting, basic service & repair, road testing, cleaning, and delivery.

People

The scheme depends entirely on volunteers, usually BISA members and their friends. We do maintenance/cleaning/repairs ourselves.

One volunteer (me) stores up to 50 bikes plus a collection of spare parts at his home;

5 or 6 others help regularly, to collect bikes, repair bikes, sell bikes, deliver them to ARA etc

30-40 other people help occasionally, by looking out for bikes, or helping on Working Bees 2-3x a year.

BISA's Knowledge about bicycles

BISA is a community cycling organization - most members are skilled in using bikes, and know a few of the basics of maintenance but are not specialist mechanics. However several of the people involved know how to do most of the frequent tasks, e.g. removing and replacing most parts; changing cables, adjusting brakes; and some can do complete rebuilds. We use this experience to work on bikes.

We fix what bikes we can, with the people we have, and learn as we go along.

Most bikes need no more than a clean and oil and adjust and maybe change a tyre. Some need repair work e.g. replacing a derailleur, fixing broken spokes, freeing seized brakes. Most bike groups have one or two people who know how to do those tasks, so between us, we manage to get most of the bikes sorted out.

Tools for the scheme

Mostly we just use our own tools, though a couple of specialist items have proved useful:

- bike stand - a must as every bike needs its gears and brakes checking, and many need wheels truing
- a stirrup pump - it's exhausting pumping up 30-40 tyres a day
- a wheel jig (loaned by a local business)- many bikes have broken spokes

Contact with refugees

Volunteer work with refugees is a specialized task, with its own skills, and in Adelaide can involve specific training. . We do not have the means to contact all new arrivals, and we do not speak their languages. Other organizations already do this well, and we link with them.

The bikes go to the Australian Refugee Association, who give them out as part of their assistance program. Any bike club thinking of setting up a bike scheme, should first contact a similar organization.

We occasionally get requests from people who voluntarily visit refugee families, and we try to meet these - often we take the bikes ourselves, and get to meet people.

The Australian Refugee Association - our liaison organization that provides help to refugee families

This is a not-for-profit organization with a good reputation for helping Adelaide's new arrivals. Part of their service, is collecting and giving out secondhand household goods such as furniture, toys, soft furnishings, etc.

ARA has expertise in what refugees need, contacting them, and we link in with those.

ARA runs a program for collecting and handing on secondhand household goods. They had been given bikes in the past, but these were in poor shape, rusty, with flat tyres. ARA found that if goods were faulty or broken or dirty, people did not want them. ARA does not have the resources to repair or clean bikes themselves - this is where we come in. . Our contribution, is to repair and restore bikes to roadworthy condition; and to use our own network, to source more bikes.

ARA also has a volunteer program, for visiting refugee families. The program provides training in the skills needed, to meet and help refugee families. I joined the program a year ago, for more contact, and also to better understand what refugees need, and how best BISA could help meet those needs. It's been a lot of work, but very worthwhile and very rewarding in many ways.

The people who give us bikes: our donors

People get to hear of the scheme by word of mouth, on our website, through regular progress up-dates in the club newsletter, and occasional press coverage (this is our publicity strategy and nets more bikes than we can work on. They phone up, or contact me by email.

I record details of all offers, date and address and no of bikes in a notebook. This helps me plan collection trips to different parts of Adelaide. I also record date of follow-up. From time to time I check we've been in touch with all people who offered bikes. This I think is important, helps to give the scheme a good name.

People often want to know if the old bike they have in the shed, is what we're looking for. The spiel we have developed is this:

We take any bike, provided it is basically in good condition, and can be got going fairly easily; adults or children's bikes; mountain bikes, or road bikes; any age, provided it can be made rideable. We say that a bit of rust does not matter, and that if it needs some repairs like replacing tyres or sticky brakes, we can do those. We say that if we cannot repair it, then we can usually use it for spares and recycle the frame. In the last 2 years all bikes offered have fitted this; and on arriving to collect, I've found 99% of bikes usable (and taken the other 3 anyway).

People also often want to know, how they can get the bike to us. I say as we're a small outfit, it may take 2-3 weeks to arrange collection. I ask them to hang on to the bike for a few weeks, and that we'll note their details, and call them a few days before we collect.

I emphasize if in the meantime they find a good home for it, that's fine by us. (many donors want the goods removed, but are afraid the organization will never turn up to collect - this often happens, and causes resentment, which we don't want - we want people to tell others about the scheme, so we keep on getting bikes!).

I have never refused a bike: there is usually something salvageable, that saves us money on spare parts.

Managing the scheme

There is more demand than we can meet; at the moment we can cope with all bikes given, but this takes effort.

Our aim was to get out as many bikes as possible. We are always limited by the time people have to work on the scheme. In theory all bikes are repairable, but as time is always limited, we would rather get out four easily repaired bikes, than just one which needed a lot of work.

This means we need a stock of bikes donated, so we can choose the best to work on.

We accumulate a batch of 20 bikes.

We start work on the easiest bikes, and finish those first

The rest get left til later. They might get repaired if we have time; or they might get left for scrap and salvaging parts

If a bike takes more than say 2 hours work, it is not worth our while doing it, as in the same time we could get 2 other bikes done. So we scrap it and salvage usable parts

To get bikes out to people, we limit how much work we do. We service bikes, and do some simple repair work. But we do not rebuild bikes.

We remove rust with steel brushes to remove rust - but no rust-proofing or rust treatment (Adelaide's climate in summer is dry)

We clean bikes with soap and water and a nylon scourer - but no degreasing

We do not touch up paint, or repaint.

Premises

The scheme needs a place to store bikes), store spare parts, has space to wash and repair bikes, and can host working bees. Also accessible readily, so people can drop bikes off, or pick them up. Currently it runs from my house and back yard, in Campbelltown, 8 km from Adelaide CBD. This means there can be anything up to 50 bikes in my yard at one time, plus the scrap heap and our collection of spares. The bikes are mostly stored out of doors. This is perhaps less than ideal, but at the moment, no other accommodation is available for the scheme.

Sources of bikes

People who have unwanted bikes in the garage - no longer ridden but too good to throw out - are our major donors. They have a better bike; or have outgrown it; gave up cycling; the bike needed an expensive repair and they preferred to put the money towards a new bike. These bikes are often in good condition - they are bikes people think are too good to throw out. This nets an assortment of 10-speed road bikes, early mountain bikes, children's bikes, and a few BMX's, average age 10-15 years old.

Hard rubbish collections – these bikes are in worse condition - they have deteriorated to the point where people throw them out, meaning they're worse condition, and often older. We know this, as we used to get them and found them a lot of work to repair. Hard rubbish is however a good source of components to build up our stocks of spares - particularly saddles, pedals, wheels, children's bikes. Beware of local rules - many councils these days sell rights to collect hard rubbish to salvage companies, and these companies are not keen on scroungers, who often pick the best things out of the pile. On the other hand it is a long tradition in Australia for people to acquire things from hard rubbish. It's probably not a big thing - but if in doubt, ask the householder, if they mind if you take the bike, or parts from the bike.

Fetes, secondhand sales and garage sales. Bikes are usually similar quality to those donated from people's homes, but they cost money, and will need a service check anyway. As a donated bike costs us about \$10 to fix up, it's only worth getting a garage sale bike, if it costs less than this!

Charities have a hard time selling these, and occasionally people give them to us.

Bike shops - occasional donations, from uncollected repairs or part-exchanges; often more recent bikes, in good condition, very worthwhile. Not a major source for us, though one we may pursue. As a courtesy to the shop, Make sure any bikes from this source go to refugees - not sold to raise funds for the scheme - as this may take business away from the shop.

Spare parts

Most bikes need a few spares - tyres have perished in storage; or cables that are seized or sticky

The most common, are tyres and tubes (tyres perish with storage); brake blocks; gear cables, brake cables. (these are rusty or seized), handlebar tape (often torn). We also swap pedals, derailleur; brake calipers, saddles; brake handles, spokes, front wheels, rear wheels.

For these we keep on hand stocks of good secondhand parts, to swap over.

Spares were originally a major cost, \$30 per bike, as we had to buy new. But we built up a collection of secondhand parts, some donated, some salvaged, and this includes tyres and tubes. These really keep

our costs down. The only things we routinely buy new these days, are brake cables, gear cables, cable housings, bells, rim tapes, and handlebar tapes. Costs now average \$5-\$7 a bike.

We were fortunate, in that two local bikes mechanics lecturers, have given us good supplies of tubes and tyres, from bikes their students dismantle - a major cost saving.

Inner tube valves

Refugee people often need things to be simple and familiar. Things that are obvious to us, they may find completely confusing, just because they are used to something different. This applies to keeping tyres up.

Our bikes all go out with "car tyre type" valves. We replace all other inner tubes. People probably already know how the valve works. They can easily buy a pump. They can inflate tyres at the local servo (useful for children). This makes it easy for people to keep their tyres pumped up; they won't be tempted to ride with half-flat tyres. In the long run this means a more reliable bike, and fewer pinch punctures.

If this seems overkill, try picturing yourself in China - you don't speak the language, don't know what shop sells what, all the bike fittings are types you've never seen before; and you don't know how to do bike repairs, because you always took them round to your local bike shop, or you had a friend who fixed them! Now, suppose your bike gets a puncture. What do you do? This might give some idea, of how hard it can be, for people newly arrived here!

Accessories

The bikes we send out, people have to know how to use everything on them. There is no point sending out a part that is broken, part working, or people may not have seen before and may not know how to use (they simply won't use it!)

If accessories are broken, that will make the bike seem poor also. So we routinely remove dynamos, fitted lights, fitted locks, loose stands, etc.

Also accessories change rapidly with fashion, so we find it seldom worth our while to spend time repairing them.

Condition of bikes that go out

Bikes are cleaned, and tidied up.

Bikes are roadworthy, with reflectors and bell.

Helmets and lights and locks

We use our funds to fix up bikes - if we were to buy these, fewer people would get bikes. We get very few secondhand helmets, give some out, but tell people they are old and they need to get new ones. The cheapest here (meeting the Australian standard) are \$10 in K-mart or Target, and ARA will help people with the cost. People can get lights and locks fairly cheaply for themselves, and a number of shops sell them.

We have a small stock of combination locks, give these out with bikes we hand on directly, and we make a point, of showing people how the lock works. The locks have a combination you can set, so we ask children to tell us their favorite number, and then set the lock up with that.

Funding

The scheme runs independently of BISA. It aims to be self-funding in the long term, but currently a few dedicated people keep it supplied where necessary. So we have concentrated on keeping costs down, rather than raising funds.

We have some funds coming in from

- Sale of a few of the best bikes (often donated specifically as fund-raisers)
- Sale of other parts to BISA members for rebuilds
- Donations from members.

Major costs include

- spares (cables, handlebar tape, bells, outer tyres)
- cleaning stuff
- mileage to collect bikes and transport bikes.

We keep costs down by

- collecting spare parts and encouraging donations of spare parts - these are often serviceable. Nowadays, we seldom buy new.
- Running the scheme from someone's house
- All work on bikes is voluntary; people use their own tools
- Some local bike businesses have kindly supported us, by giving us spares at a very low rate. We acknowledge them in the Club newsletter, and on our website, in articles about the scheme.

Transport and storage

We get offers from all over the Adelaide metropolitan area. Most individuals offer 1-2 bikes, occasionally 3 or 4. To keep costs down, we take names, then organize collection runs

We need to go out and get the bikes, rather than wait for them to be delivered. Most BISA members will deliver, but in my experience, other offers usually don't materialize. People are busy, and it may be hard for them to find a spare hour, to make a special trip, to take a rusty bike to a suburb several kms away.

We have three depots (well, people with sheds, who I would see fairly regularly) throughout Adelaide, plus the "central depot" at my house. These people can collect bikes locally.

All bikes eventually end up stored at my house, for work.

I use a large trailer-bar-mounted 4-space bike rack, and can fit 3-4 more bikes in the car.

Keeping tabs on bikes

To keep the scheme transparent and accountable, we track each bike into, through, and out of the scheme. WE know how the scheme is going; we can in theory tell people what happened to the bikes they gave; we can write regular reports for the BISA newsletter.

Each bike gets a number assigned (black felt-tip on green electrical tape)

We keep a register in a notebook, recording a description of each bike, who gave it to us, the date, their contact details. The bike's fate goes on the register too – it either ends up

- delivered to ARA
- delivered directly to a refugee family
- sold to raise funds
- not worth repairing, ie used for salvage, then the frame is scrapped.

As several people can work on a bike, we need a system of job cards, to make notes, e.g "bike needs a new rear derailleur", "broken spoke, rear wheel" so people know what needs doing. I have a stock of cardboard tie-on parcel labels, put one of these on the handlebars, and note on it to remind myself, where the bike is at. Otherwise I end up with several part-disassembled bikes in my yard, and am not quite sure which stage, they are at.

Service and repairs after donations

Not officially part of the scheme – once the bikes go to ARA, they are off our hands. If the bike breaks down, they are responsible for getting it fixed. Many of the recently arrived African families know as much if not more about bike repairs than we do, and are adept at fixing punctures. Their major problems were finding tools and finding glue to stick on puncture patches (we used to help out occasionally by donating these - but something to be aware of, and if we meet people, we inquire how the bikes are going)

Some families we have given bikes to directly, have contacted me again if the bike needs fixing. I have used these opportunities as a way to keep tabs on how our work is standing up, and have thus offered to do these repairs for them, free of charge. It is a good way to meet people, and it gives them contact with the Australian community. It makes sure our bikes stay on the road. It is an extra gift, as otherwise they would have to take the bike to a bike shop. So for organizations that don't want to set up a recycling scheme, there may still be opportunities for work with refugees and their bikes, through offering to repair them

Most repairs people asked for, were punctures; or slipped saddles/handlebars where we had not done up the nuts tightly enough, and the saddle or wheel had slipped under load.

As a small scale I tried cutting up old inner tubes as tyre liners to reduce punctures. This seems to work, and I have done it occasionally for families I know - but it isn't part of the BISA scheme.

I also nowadays make extra sure the wheel nuts and saddle bolts are done up extra tight

Risk management

Our scheme is very small scale, dependent on voluntary effort. Obtaining an insurance policy, or legal advice, would take up a significant proportion of our annual budget, and I have not yet had to do this. I aim to run the scheme with a commonsense approach to risk management and duty of care.

All we are doing, is the same as other organizations - collecting secondhand goods, checking them over, cleaning them, and handing them on free of charge, to people who would like them. The Salvos, St Vincent de Paul, Anglicare, etc do this all the time. They seem to do it without much trouble.

The main issue to us, is duty of care to the people who get bikes. We fulfil that by checking the bikes for safety, by doing necessary repairs, and by road testing them. I suspect other organizations offer bikes with fewer checks than these.

Once we give a bike to the Australian Refugee Association, the risk passes to them, and the bike is out of our hands. We have no control over what happens to it after that. We have no control over who rides it, where they ride it, etc.

As the scheme runs under BISA, volunteers working on the bikes, may be covered to some extent, by BISA's insurance.

Bike shops.

The scheme has been greatly helped by a handful of local bike shops who have given us parts at or below cost. We are happy to take out of date stock, that probably would not sell these days. One shop has helped enormously with a long term loan of a wheel jig – we get quite a few rear wheels with

broken spokes. Businesses that help us like this, get a mention and acknowledgment in BISA's newsletter "Pedal Update"

Basic service check on bikes- to give an idea how much (or how little) we do

1. -oil the axles, brakes, derailleurs, headset, bottom bracket, pedals
2. -put the bike on the stand
3. -remove any broken accessories, rusty mudguards, dynamos, broken bells, locked locks, etc
4. -check for missing parts - pedals, chains, bells etc!
5. -check the tyres; if the outers are intact, with tread, we use them; if the rubber is separating showing patches of fabric; or if they are worn smooth - we replace with a good secondhand tyre from stock
6. -check the valve; if it's anything other than car tyre, we replace the inner tube, with one with a car tyre valve
7. -pump the tube up to 50 PSI; see if it holds - if not replace the tube with one from our stock of tested tubes (either new, or repaired and checked). Some slower punctures show up after the bike has been stored for a few days.
8. -check both wheels for broken spokes
9. -check wheels for trueness, a mm or two out is OK; or failing that if it turns and the brakes work, it's clearly OK. otherwise depending on your skill true in the frame, or on a jig. Some bikes have badly buckled wheels, and we replace those from a stock of spare wheels from scrapped bikes.
10. -use a wire brush to clean the worst of the dirt and rust from any chrome or bare steel:: derailleur, brakes, axles, spokes, chrome, etc.
11. -check the axle nuts are done up correctly
12. -check the brakes by squeezing the handles. This often shows if they are correctly adjusted.
13. -check if the cables are moving freely. We commonly find frozen or sticky cables, and we replace the inner cables of those, and cap the ends.
14. -check the gears, full range, on both cogs, to make sure they change OK. Check the stop settings on the derailleurs.
15. -check the saddle is in good condition. One or two small tears that won't catch clothes, are OK. Often saddles are in poor condition (you would not ride it yourself) and we replace from a stock of better saddles, collected from scrapped bikes, or salvaged from hard rubbish.
16. -check the saddle is set level, and the seat post can be moved up or down to adjust saddle height
17. -check the handlebars are set level, and straight
18. -check the bottom bracket is correct - ie not loose or grinding
19. -check the pedals look OK; if not replace
20. -handlebar tape: tidy up; on road bikes, if it's very tatty or torn, replace it.
21. -oil the chain
22. -check the bike has front and back reflector,
23. -Check the bell works.
24. -check any other nuts you usually check on your own bike, oil anywhere else you'd usually oil on your own bike.
25. -put the bike back on the ground, check the headset is tight; if not, tighten the top nut.
26. After that the bike is ready for cleaning, then road testing.

This takes 30 minutes to 1 hour depending how fussy you are; and shows up other faults that need repairing, in about 1/3 of bikes.

e.g

-true wheels; -replace or de-grease rear derailleur, e.g worn jockey wheels; no tension on spring; -tighten bottom bracket; -replace spokes, including removing the gear cluster at the rear; -remove sticky or locked links in chains; -replace torn saddle; Occasional: you name it, we've had to do it once; -grease axles and replace bearings; -replace bent front forks; -re-build bottom bracket; -replace front derailleurs; -replace bent handlebars ; -replace bent brake calipers; -supply new crank; -replace bent axles in wheels

Road test

We ride the bike up and down the road; check steering, pedalling, saddle. We run through the full range of gears, and check the brakes.

This is important, and was recommended to us by Peter Good. There are some things that you can't tell when the bike is on the stand. Also, it shows to us whether the bike is actually rideable. In about 1/3 of bikes, the road test shows up a few minor problems that we did not detect, e.g the brakes need tightening or cleaning.

After this we would check the saddle bolts (on saddle, and on the frame) and the wheel nuts, and the lock nut on the handlebar, to make sure they are done up extra tight - in the past we found we were not doing them up tight enough, and people were bringing bikes back with sunken saddles, slipped saddles, or mis-aligned handlebars.

Basic clean-up of bikes - to give an idea how much (or how little) we do.

Most bikes are dirty and dusty, from storage. Many have surface rust. We aim to end up with a bike that looks attractive and runs well - but not necessarily totally free from grease and dirt.

Rust: Most of the rust we see when a bike arrives is "surface rust" ie stains that brush off leaving shiny chrome underneath. Usually what seems to have happened, is that the chrome rusted through in a spot, and a rusty stain spreads for quite some distance over the chrome surface. The stain can be removed, with a wire brush, or nylon scourer plus soap and water.

To check this, we first use wire brushes, and brush a rim or crank vigorously for 10 seconds, to see how much rust will come off. This often leaves the chrome looking relatively shiny, with a few spots where the rust originally broke through.

When the bike gets washed, more of the rust stain comes off with the nylon scourer.

This is the extent of rust treatment - removing rust stain and loose rust.

Anything chrome, steel or iron, can be treated thus, though the brush can scratch bike paintwork.

We then use ...

- eucalyptus oil to remove old sticker gum
- brush to remove dust, cobwebs, etc.
- wire brush to remove greasy dirt from gear clusters, brake calipers, axles, derailleurs
- penknife to remove greasy dirt off jockey wheels, drive cogs.
- soap and water to wash the frame and saddle and wheels
- wipe down with a cloth & leave to dry

After this the bike should look more presentable. We usually allow a little greasy dirt on chains or gears. It would take too much time and money to degrease and then re-grease every bike that came through. Even if we did this, the greasy dirt would soon reappear.

However there have been two or three bikes that have been extremely oily, literally covered in black oil; and we have degreased these. We also use paraffin to clean parts that need servicing.

Bikes awaiting work

... stored round the side of my house, behind a locked gate. When this was taken I had around 40 bikes stored at my house.



Some bikes donated to the scheme



Rust



Most bikes arrive with some rust, acquired during storage. People prefer goods that look in good condition, and will not want them if they look rusty. So we spend a bit of time, removing as much of rust as possible.

The above is not as bad as it looks and can come up looking quite clean. The chrome rusts through in small spots, and the rust then spreads over the surface of the chrome, sticking loosely to it. A surprising lot comes off with a wire brush, or nylon scourer, leaving the chrome shiny (but still with small spots of rust), and improving appearance of the bike.

What can be done: bike as it arrived is above; below, after using a wire brush to brush half the bar and head clamp. This gives some idea of just how much rust a wire brush can remove, and how much the bike's appearance improves. We treat all chrome and steel this way, including spokes



More wire brush work - on a rusty rim - improving appearance, and braking. We routinely brush rims, and spokes, and hubs.



Rusty chain - often look dire, but with oiling, will get moving and work OK.



Rust on the chrome at the top of the headset, and the brake calipers and adjuster - also usually comes up well with a wire brush. The gear levers and other bits, being aluminium, aren't affected.



Rim with some rust spots. Most of these would clean up with a wire brush or with a nylon scourer - leaving a chrome rim. Most of the chrome on the bike comes up OK like the rim below



Tyre valves

Top picture - car tyre valve; bikes go out with these only.

Lower pictures - other types of valve. If the bike has these, we take out the inner tube and discard it, put a car tyre valve one instead, for ease of use.



Tidying up the bikes

ARA tell us that people only want secondhand goods that are tidy, clean and look in good condition - otherwise they won't take them. So a good bit of our work, is making the bikes look tidy and neat

Remove tape used to secure brake cable



Fit a plug in the end of this handlebar



Old dynamo - remove it, as it no longer works, and also as people may not know how to use it. The lights are not worth fixing. It's cheap to buy better, brighter lights.



Wires from an old dynamo set up - we remove these, they no longer serve any purpose



Torn padding on a BMX bike - looks untidy, so either trim the fabric, or remove the



Handlebar grip on child's bike - replace. This one is dirty, and could not be cleaned



Old rusty bell - - if the bell does not work, we replace it. Even if a rusty one like this works, we replace it with a new shiny one for appearance sake (legally, bikes need a warning device)



Fitted bike lock: removed. Most people have not seen this type before, and may not know how to use it.



Broken wheel reflector - remove, and replace with one the right colour



Defunct speedo - remove it, its cable, its pick-up



Saddles

Many saddles are torn or worn. We allow one or two small tears; otherwise discard.

Useful saddles



Saddles too work or torn or bent to use



Secondhand Tyres

Outer tyres often perish with storage. The main problems are where the rubber has perished, and is coming away from the underlying fabric, or affects mainly the sides of tyres. We don't use these tyres - even if the tyre still has good tread.

Some tyres have hairline cracks but the rubber seems sound and rubbery. We had some doubts, as we thought the cracks might lead to punctures. But provided the tyre had enough tread, we started using them. They seem OK.

BELOW - Tyres with rubber that has turned to powder, and crumbled away. We discard tyres like this.



The tyre on the left is worn thin and we would not use it - it will soon wear out, or get a puncture, and the recipient will have the hassle of replacing it. The one on the right is also a secondhand tyre, but in much better condition, so we'd use that one.



Examples of secondhand tyres we have used...slight perishing, but tread is OK



Secondhand spare parts

We keep stocks of reliable secondhand parts, either donated, or salvaged from our scrap heap. These go on a 900 x 1800 mm shelf unit, and are stored in old drawers. They are the one big thing, that keeps our costs down.



Bells - all bikes need one; a recycled one saves several \$ from buying new.



Handlebar grip tape: many bikes have tatty handlebar tape and we replace it. This is thin PVC tape, no longer sold; a bike shop lets us have this at a good rate. More recent tapes cost several times this. Black goes with anything.



Spokes, various sizes, salvaged from buckled wheels. Many bikes are no longer used, as they have a broken spoke, and these are expensive to repair. We have a freewheel remover, and a wheel jig, so can do this work.



Spare wheels, donated, and salvaged from hard rubbish, all sizes. Many older bikes have rims that are buckled, or are rusted through, and cannot be repaired.



Box of saddles, mostly donated, a few salvaged from hard rubbish. These are in good condition, with at most a very small tear.



Useful Tools

Most of the time we use our own tool set, and this is enough, since most of the repairs we do are simple repairs, that most cyclists have tools for. A few repairs are more difficult, but we have enough volunteers with e.g freewheel removers, pedal extractors, spoke keys, to cope.

TOP: Stirrup pump. We routinely pump tyres to 50 p.s.i. to check for punctures, and before bikes go out. This stirrup pump, with a pressure gauge, makes the job a lot less effort.

BOTTOM - two gadgets that save lots of time: one for compressing brake calipers while you do up the cable nut; the other for holding a chain together while you re-join the links. Save time.



Tools for cleaning bikes

Wire brushes for removing rust. The top brush has a narrow back, and can get into clusters. The bottom one is broad, better for spokes. About \$10 each at the local hardware shop



Kitchen Nylon brush, and sponges, and scourers, for washing bikes with soapy water. Toothbrushes are also useful



Degreasing parts in paraffin

We do not routinely degrease bikes - but parts that need work (e.g seized or sticky derailleurs) do need to go to the shed, for cleaning.

The picture shows trays for scrubbing and soaking parts. The black tray is cut from a car engine oil container. It's a messy job. We prefer paraffin to wash-off degreasers - you can soak things in it; it seems to do a better job of penetrating into mechanisms; and the used paraffin (right hand bottle) contains dissolved oils and greases which help penetrate. Things get a soak in the re-used paraffin; then a rinse in clean paraffin.



The Scrap Heap

Bikes missing a vital component, or with several faults putting them beyond worthwhile repair, go to the scrap heap. Most bikes stay there for a few months, before going as scrap steel. The scrap heap is a useful source of spare parts - you can just look for a bike like the one that needs fixing, and see if it still has the part.



We also end up with a pile of scrap wheels - buckled, or rims rusted through.



Number tags

Each bike gets a number on arrival, and keeps it through the scheme. Usually stuck on places that remain with the bike and don't affect cleaning - e.g a brake cable; on kids bikes on the handlebar. We keep a written register of all bikes, their donor, and the eventual fate of the bike. That way we can track bikes through the scheme.



A finished bike

This bike was donated directly to a family who asked us for bikes. We also gave them a lock, and a new helmet. The new owner finds the bike a bit big at the moment, but he's growing fast.

