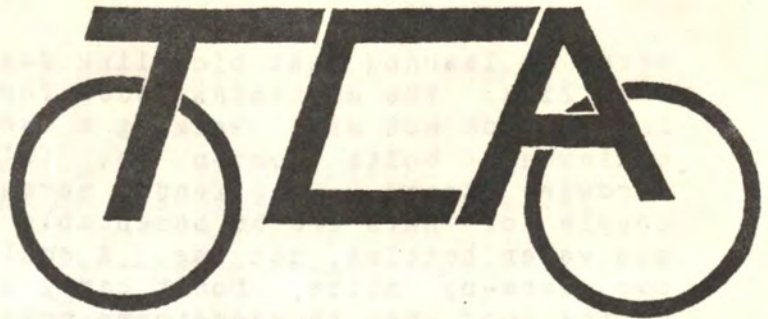


DOUBLETALK

BULLETIN OF THE

Vol. 2, No. 1

SEPT.-OCT. 1977



TANDEM CLUB OF AMERICA

"SAY, I NEED SOMEONE TO RIDE WITH ME..."
by Mike & Laurie Roeder, San Diego, CA

We'd like to share a few things we've learned in the past two years or so about a peculiar disease -- tandemitis. In chronological order:

Mike hates to chase tandems that his friends ride to work each day. Tandem owners don't like to let friends ride their bikes. A person who lets Mike borrow his custom George Stratton for the summer is a great guy! Laurie is very impressed by the tandem, as are some other girls who have since faded from the picture. Laurie likes riding to the beach on the tandem. Laurie doesn't like riding up the mountains in a slither of sweat on a 95 degree day. Neither does Mike, but they do it anyway. Mike discovers heavy guys with muscles are not necessarily better tandem partners than light girls with enthusiasm. He also discovers that the Stratton tourer will not keep up with a Pogliagli tandem. Ridding the bike of steel rims, hub brake, pannier racks, lights, generator, fenders, horn and water bottles drops it from 56 to 42 pounds. It goes faster, rides harder and bends the axles on his single-bike racing wheels. Eventually, even great guys want their tandems back.

Honeymoons are a great excuse for a tandem tour. Tandem tours are a great reason to buy a tandem. Tandems are not so easy to get on a week's notice. They cost lots of money. An unexpected inheritance is best spent on a Paramount. Stone Cyclery in Alameda has six in stock -- what color would we like? Black is beautiful. Tandems are fun to put together. Tandems are lousy to get finely tuned. Cables break -- where do you get a tandem fingertip shifter rear cable? Cinelli seats look great and sit terribly on the rear. Weinmann rims flex. Mike's legs hit the rear bars; Laurie's nose hits Mike's rear. After 10 days of development time, the honeymoon begins. Contrary to popular opinion among cyclists, there are other things to do on a honeymoon than ride a bike, so we borrow the seat off the Stratton to assure a good time will be had by all.

Next, we learned that bicycling does not necessarily ruin one's sex life. The mountains, 6000 foot elevations, tandems and a 40 inch low do not mix. Walking a tandem uphill is not fun! TA chainwheel bolts loosen up, fall out and are not available in hardware stores. Long fender screws, jillions of washers and a couple of nuts are an acceptable substitute for a while. Carry two water bottles, not one. A small handlebar bag will not carry two warm-up suits. Don't carry a new tandem with leather seats on the roof when thunderstorms break. A Paramount tandem can be crammed into a Volvo 122 sedan in less than 5 minutes when a thunderstorm breaks.

When we got home, we found out the following items of interesting, even fascinating, information. Changing a Paramount to crossover drive and 15 speeds can be elusive and expensive. It can be done for \$70 if you're in the right place at the right time with green stuff to wave. Regina freewheels on tandems never come off. Exception -- a Regina freewheel body that has been stripped of its slots, cogs, pawls and balls can be removed with a 16 inch pipe wrench. Suntour Winner steel freewheels work great. Weinmann rims keep flexing, spokes begin to break, and break and break. The famous tandem shop takes 83 days to reply to a letter about better wheels. Their prices are high. Ray Blum in L.A. builds great wheels, in one week, for \$110; they are guaranteed and have lasted over 2500 miles without truing. Phil hubs are neat. Tires and tubes and Super Champion rims don't get along. The tires will not seat on the rims. Mike tosses a wheel across the garage and it still retains its trueness! Schwinn LeTours will take 150 psi before seating evenly on the rim.

Other items of painfully learned equipment advice: Most rear racks do not fit on a 19" rear. Karrimor can be persuaded onto the seat bolt with a few sheet metal tabs. Long tent poles fit admirably well beneath the boob tube, slung by two toe clip straps. B-72 saddles are very comfortable on the rear. The seat wires will break when clamped on a Campy seatpost. Anybody need seat leather? Laurie and Avocet's new touring ladies seat get along very well. Mathauser pads are phenomenal in the rain. Helps stopping after a thousand miles if the pads are sanded with sandpaper. Suntour Cyclone long front derailleurs twist on the seat tube under the pressure of a five hour century. Some riders actually carry and loan out 4mm allen wrenches to tandems with twisted derailleurs. Paramounts eat headsets regularly. Your local bike builder-brazer can fit other ones for about \$15 and a few minutes to put in spacers. Black is not only beautiful, it is easy to match braze-burned paint!

Laurie and Mike ride home, downhill, with the wind, on a beautiful day. Black Beauty has done her best and all is well. In the mailbox are a new bike magazine, a catalog ordered months ago and forgotten, and the TCA bulletin. New products! Lighter! Stronger! Faster! Better looking! And all this for only \$\$\$\$\$\$\$\$\$\$! Mike heads for the bathroom with all the

information. Laurie hides the checkbooks, Master Charge, wallets, coins...

Editor's note: Ray Elum's address is 11100 Pangborn Ave., Downey, CA 90241. He specializes in custom mail-order wheels.

JAZZ UP YOUR STOCK TANDEM

by Bill & Cathy Sheridan, Centerline, Michigan

This year is our first year as tandemists and we were extremely lucky to lay our hands on a two year old Follis tandem for under \$350. Thanks to the cycle's original owner, the tandem came minus the drum brake set up which is standard on older production French tandems. The Simplex hanger was cleanly filed off and the bike had a Sun Tour V-GT Luxe rear derailleur (on it's own fixing plate) mounted in it's place. The front derailleur was a Shimano Thunderbird. The crank sets were Nervar three piece with cross-over drive and Atom rattrap pedals. The whole tandem as delivered by it's previous owner weighed in at slightly over 48 pounds.

Changing the bottom bracket assemblies was the first step. TA makes about the cheapest crank set for tandems that is not only cotterless, but also looks first class and is of decent quality. I chose a double plateau crank set with cross over drive (I believe TA only makes cross over drive). The bottom bracket that I found had the greatest flexibility in case I could not get the TA was the Phil wood sealed unit. These are slightly expensive (about \$35 each) but require little maintenance and are invulnerable to water and dirt.

The front set of cranks would have a single chain ring on the left so a Phil bottom bracket length of 2 was needed. The rear crank set would have a single chain ring on the left and a double chainring on the right. A bottom bracket length of 3 was needed here. Phil wood's come in the following lengths for the following set ups and will fit with practically any crank arm and any bottom bracket width:

- Length 1: For Campy track crank sets
- Length 2: For single chain rings of other crank sets
- Length 3: For double chain rings
- Length 4: For triple chain rings

All you really have to figure out is what size thread you have and what number of chain rings you desire. Once installed you can tighten or loosen the lock rings on the bottom brackets to align your chain drive to your freewheel. I substituted Lyotard steel platform pedals for the Atoms.

As a final touch I replaced the Sedis chains with Regina Oros and substituted the Normandy freewheel (English threaded) with a Sun-tour Pro-Compe 14-28. The tandem came with ACS tandem hubs and NISI alloy rims which we kept. I built both wheels for the original owner and we break about one spoke every 60 miles which isn't bad since I weigh about 280 (that's right, TWO 80) and my wife weighs around 135. All broken spokes have been on the front wheel.

The tandem now has a custom, clean look and catches a few eyes. Total weight saved was about 4 pounds (the bike now weighs about 44 pounds in it's stocking feet). The performance of the Phil bottom brackets alone make it well worth the expense. As a final touch we added Schwinn Le Tour tires and put a Schwinn thorn proof inner tube in the rear tire. We've enjoyed the Follis very much and can only say that in our case we find it doubles our enjoyment of the king of sports.

Editor's note: TA cranksets for tandems come in both crossover and same side drive. Schwinn Paramount tandems came stock for several years with TA right (same) side drive, as many owners who subsequently switched to the crossover can attest. Cross over drive allows the option of a 15-speed setup at the price of increased stress on the rear crankset bearings.

BLIND STOKER PROGRAM

Dalton Harrow (325 Mt. Blue St., Norwell, Mass. 02051) has offered to organize a blind stoker program for the club, acting as a go-between for blind organizations and individuals and volunteers both in and outside of the club who would like to offer the use of their machines (or acquire a stoker!) to blind stokers so that they may cycle. Judging from the response to the Tandem Club survey, there is interest in the club pursuing this aspect of tandeming. Interested members should contact Dalton directly at the above address. Dalton has already given the names of a few TCA members to blind individuals, not realizing that this is against club policy. All members are asked to note that the directory is for personal use only. The members involved have been sent apologies and it is hoped that no offense was taken. The officers and Dalton regret that this occurred.

TANDEM TIDBITS

We would like to welcome our new area representatives who have recently volunteered: Bob Freeman and "B" Garland of Seattle, who will represent the Pacific Northwest, and Ashley and JoAnn Molk of Columbus, Ohio who will take care of that state. We encourage tandemists in these and other areas to contact their

representative if they have questions about the club or activities they wish to promote....Along similar lines, Cliff Coffey of Fullerton, CA has offered to reorganize the moribund "tandem specials" of the Los Angeles wheelmen. These rides are once-a-month specials selected for their suitability to tandems; less hilly rides in lower density traffic with fewer traffic lights, etc. Now that ride leadership has passed out of the editor's hands, it is hoped that the pace of these rides will be more reasonable....Many members have expressed interest in club T-shirts and/or jerseys. We have sent out for competitive bids on club jerseys (using the logo which appears as the header of this issue) to Emily K., Kucharik, Saveedras, and Jones Cycle Wear of Lunenburg, MA. The latter offers the most reasonable terms for us, including a 10% discount. We are unfamiliar with their work; is there anyone who has seen any of their jerseys? If so, please drop a line to the treasurer since we don't want to be offering poor quality goods....Bill & Cathy Sheridan and Rudy & Kay Van Renterghem set up an exhibit promoting the TCA and tandeming at a recreational fair in Michigan last May. They report passing out many TCA applications to interested cyclists...Thank you! Similar efforts were made by myself at the Great Western and by the Zeichners at the Great Eastern Rallies. The Zeichners and Bill Boston also gave talks on tandem topics at GEAR....Several people are promoting new tandem rides across the country; we think this is great! The Van Renterghems sponsored Tandemetric, a LAW sanctioned metric century followed by an all-you-can-eat dinner in Utica, MI. Bob Freeman organized the century and "50" announced in the calendar and the Baltimore Bicycle Club runs three (3!) tandem only rides a week! If you are planning a tandem ride or rally, please let us know about it. We can give you plenty of free publicity.

DOUBLE TROUBLES

by Malcolm Boyd and Harvey Sachs

Harvey Sachs of Princeton, N. J. has offered to referee a column on production tandems and offers the following cure for the Simplex derailleur replacement problem described by Jim Burlington in the May issue:

"To remove the Simplex derailleur insert two allen keys, a 5mm for the inside and a 6mm for the outside. Looking from the left side of the bike, the inside key is turned counterclockwise while holding the outside key stationary. The hanger must then be filed and tapped to mount other self-respecting units such as a Shimano Crane GS or one of its brethren. Some bike shops will have the 10mm x 1mm tap required or alternately for less than about \$2.00 your friendly hardware dealer will sell you a 1/8" pipe tap which is tapered and has about the right number of threads per cm. Be sure to hold the tap perpendicular to the fork end and tap the hole, threading just deeply enough so that

the Shimano can be threaded in. The hanger is then filed to clear the spring retaining tabs using the mounting plate sold with the derailleur as a guide.

"In addition to the other dealers in tandem goods listed in previous Double Talks, I offer the following as possible sources of components: Cyclo-Pedia (311 N. Mitchell St., Cadillac, Mich. 49601) carries TA cranksets; and REW Reynolds (159 Wellingsborough, Northhampton, NN1 4DX, England) has an amazing ability to find parts no one else is willing or able to locate at reasonable prices for steel cranksets or supply 1/2 of a missing tandem crankset. Personally I do not advise using conventionally tapped cranks on the wrong sides -- after 5 years of this, we had ours reamed, sleeved and retapped to get left handed threading on the left hand side and vice versa. Pedals don't unthread while we are riding anymore."

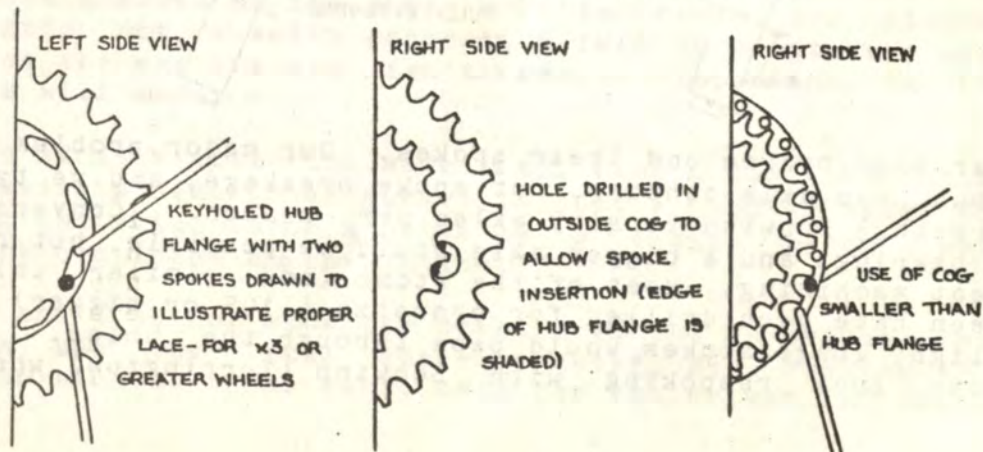
Don Kadron of Severna Park, MD writes: Thank you for our first issue of Double Talk, which we thoroughly enjoyed. My wife Vera and I have just started tandeming. We have a production model Gitane Touring tandem. We love to ride it, although in just a few times out we experienced our first major problem (and minor crash!). I am 6'2" tall and so I set up the seat in front to about 4" extension above the seat tube end according to the 109% rule. There is ample seat post (about 9") so this is no problem. I then set the front bars up slightly below the seat level -- herein lies the near tragedy! Since I figured I did not have the recommended 2 1/2" of stem in the head tube, I tightened the expander extra tightly and assured myself that the bars were solid. After about six excursions we felt we were getting the feel of riding, when suddenly on a push-off the front headset came apart and the bars came off in my hands! I regained balance but the stoker rolled and bounced a few feet! Fortunately, no one was seriously hurt, but we realized that the worst thing that can happen on a bike had happened to us. What had occurred was that the expander bolt was tightened in the threaded and flatted portion of the steering column which had weakened it so that repeated flexing broke the steering column. Note that the stem did not pull out, but rather the steering column broke about 2" below the end. Inspection showed that the stem was only 5 1/2" long from top to bottom so that it was impossible to set the bike up safely for a person of my size. The threaded and flatted portion of the steering column extended to a depth of 2". We have since gotten a 6 1/2" stem (apparently they don't come much longer) and set the bars making sure we have 2 1/2" of stem inside. The moral is: don't reduce the amount of stem in the head tube below 2 1/2" even if you are sure the stem is tight. We're back riding now with a new fork, but wondering what else can happen? I've since replaced the Michelin 50 tires with Schwinn LeTours since a friend has had two Michelin 50's pop off the rims while the bike was sitting in the sun. We are also anxiously awaiting the spoke problem since this bike has ordinary spokes with a cross-2 pattern on the rear wheel. I notice that

half of the rear spokes seem to be installed with the heads in countersunk holes rather than having the spoke bend come out this side. Is this part of the reason for spoke breakage? Also, having never had the pleasure (?) of replacing a spoke, do you have to remove the freewheel to replace those on that side? (The bike has an Atom drum brake.) I can't see myself pulling a freewheel on the road, but I can't see myself walking 10 miles either. Is there a simple procedure here? I would appreciate any advice of any other Gitane owners (other than junk it and buy an Assenmacher or such). Thanks again for the Double Talk.

The editor replies: The problem with the steel Gitane rims is that the steel is not as stiff as the better aluminum rims and tends to "open up" laterally when exposed to high pressure, such as when sun heats the tires up. This sort of failure invariably occurs when the bike is stationary, since the airflow over the wheels cools the wheel while in motion. LeTours do hold on any rim better than Michelin 50's. The problem is in the design of the rim, however, and that is why the "box" pattern of the Super Champion, Rigida-Alu or "pseudo tubular" style of the Mavic Mod. III is preferred.

The free wheel must be pulled from the hub (a nearly impossible job, in some cases) only if the freewheel cogs completely obscure the spoke holes in the hub. When using a large 140mm diameter drum brake, I always use a small cluster of about 26T maximum (in combination with small chain rings) because of this problem. A small hole may be drilled through the base of a large cog to provide access to any spoke aligned with it. Alternately, the hub can be "keyholed" on the side away from the spoke to allow the spoke head to be introduced. One of these two methods (sketched below) may be of use. In any case, don't walk. The spokes immediately around the broken one can be tweaked to true the wheel. I only get upset when I'm down to 34 spokes.

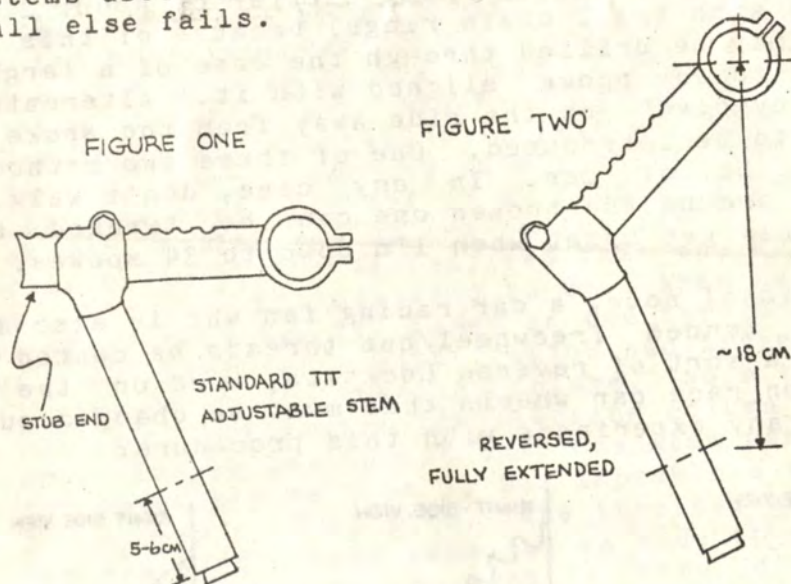
As an additional note, a car racing fan who is also a bikie suggests that tandem freewheel/hub threads be coated with "knock-off" paste, a sort of reverse Locktite, used on the threads of lug nuts on race car wheels that must be changed quickly. Does anyone have any experience with this procedure?



Harvey replies: Mr. Kadron raises problems in two areas, both of which deserve comment:

1. Stems. It is crucial that stem installation be properly done, so that the stem and bar will both do their job and fail safely if that is required. First, it is essential to keep 2 - 2 1/2" of stem in the column. Second, the stem bolt must not be overtightened. It should be tight enough to withstand the stresses of riding, including panic maneuvers, but it should give in collisions. As I recall, CPSC (Consumer Product Safety Commission) regulations require that a force of 50 lbs. applied to the end of the bar should move it.

Lots of us ride tandems that are too small, and would like longer stems. I can make two suggestions. First, the TTT adjustable stem (sketch 1) is a real knee-killer if improperly used, since the stub points back at the rider. However, if installed backwards, the extension points upward. (See figure 2.) It can give the effect of a conventional 90 mm stem slightly more than 7" tall. PLEASE don't use this stem in its shortened positions, it really can hurt whatever hits it. The second suggestion is to write your friendly local framemaker and ask him to make you a steel stem to fit. It will be a trifle heavier than the alloy unit, but steel is more easily fabricated for custom work, and far stronger in long reaches and tall extensions. Custom Reynolds 531 stems used to be made in Britain -- try R.E.W. Reynolds, if all else fails.



2. Rear drum brakes and their spokes. Our major problem with an Atom hub was axle bending, not spoke breakage, and we typically ran through 3 Schwinn Varsity axles per season. Conversion to sealed bearings and a bigger axle would be possible, but requires some neat machining. Most of the Atoms (and similar units) we have seen have been drilled for oversize (.105 or bigger) spokes; often light gauge spokes would pass through the holes. I have had some luck respoking with Schwinn (Torrington) wheelchair

spokes. Four-cross matched available spoke lengths with 27" wheels. If the spoke has too much play, buy appropriate sized washers at a model shop for insertion between head and flange. It looks funny, but it works. If you decide to follow H. W. Breedlove's suggestion (LAW Bulletin, July, 1977, p. 40) and build a 71 spoke wheel, I suggest retaining the 36 old heavy spokes because they fit the holes, and using light spokes in small holes for the intervening ones (drilling small holes). Countersink the radiused side of the hole, and use washers between flange and head, as above. This has to be the least expensive way to make a virtually indestructible wheel -- if your hands can turn a wrench with spokes that close!

Ben Furst and Suzy Miller, of Potsdam, NY write: First, I'd like to say that we enjoy reading Double Talk very much, and look forward to receiving each issue. Thanks for all your hard work putting it together.

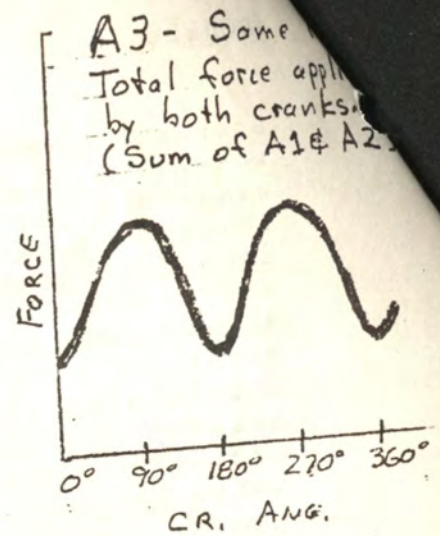
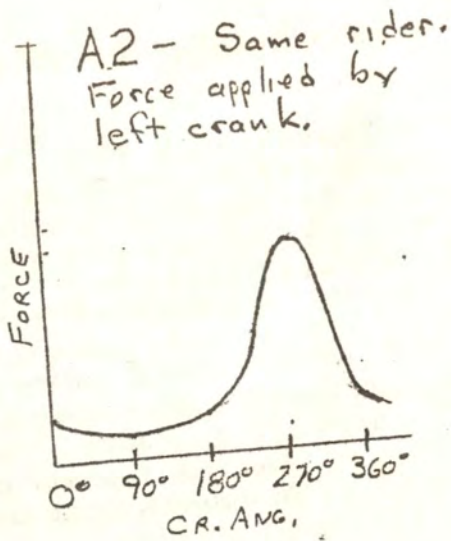
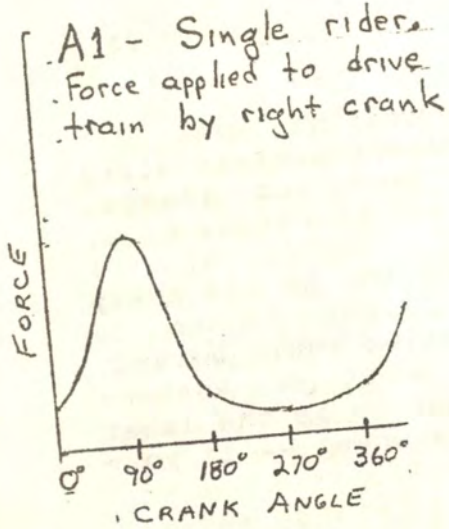
I read with interest the various letters relating to the phase relationship between driver's and stoker's cranks, and I thought I'd add my two cents. Actually, the essence of what I planned to write was said in the letter to the editor in Bicycling! magazine, June '77, pages 66-67, so no sense repeating that. Eut, I had prepared a set of graphs to illustrate my letter and I thought they might be suitable for Double Talk.

The graphs are in three sets. Each set has three drawings which attempt to show the force applied to the rear wheel, as the crank turns in three different situations. Set A is for a single person (driver or stoker) or for a solo bike rider. Set B is for a tandem couple with cranks in phase, and Set C is for a tandem couple with cranks 90 degrees out of phase. Both members of the tandem couple are assumed to be of equal strength. I'll discuss the case where they are of unequal strength later.

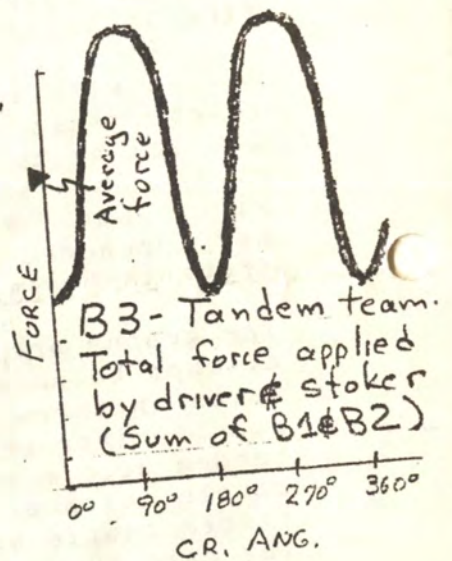
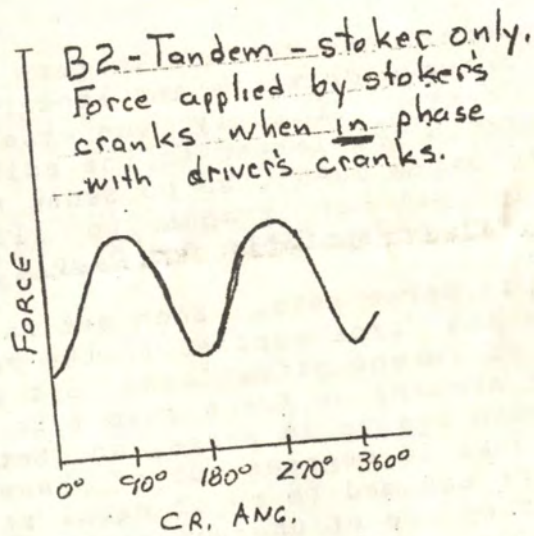
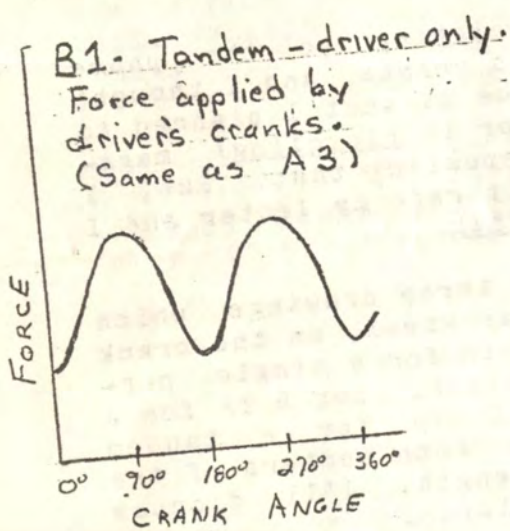
The drawings are based on drawing A1 which shows what I've guessed is the force that one leg of a single person applies to the rear wheel as the cranks turn. I've assumed the use of toe clips and straps, which is why the force never drops to zero. I've just guessed at the shape of this curve and although I'm sure it's not exactly correct, I feel it's not very wrong. In any case the exact shape isn't really important, as the end results will show.

Drawing A2 is exactly the same as A1, except for the other leg. And drawing A3 (darkened curve) is just A1 and A2 added together, showing the total force applied by a single person while the crankset completes one revolution.

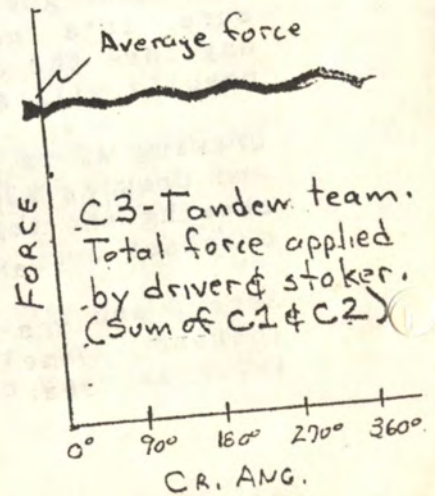
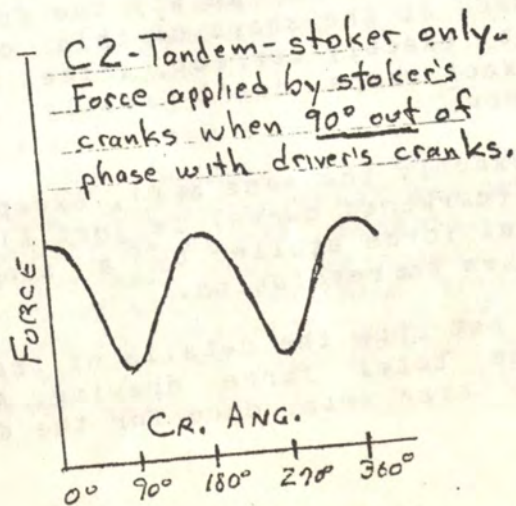
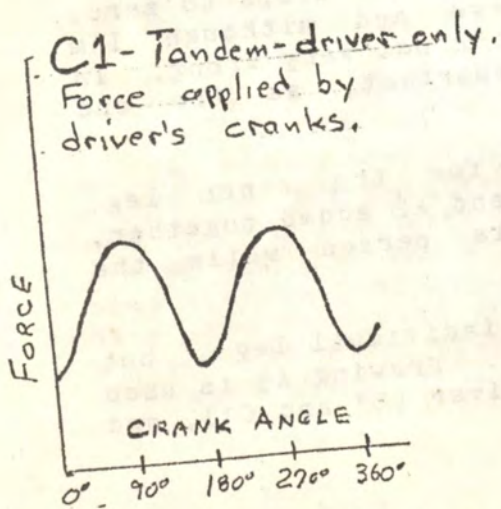
Sets B and C do not show the details of the individual legs, but instead use the total force drawing, A3. Drawing A3 is used twice in each of these sets, once for the driver (B1 and C1), and



0° → Right crank at top, 90° → Right crank forward.



0° → Right crank at top, 90° → Right crank forward.



0° → Right crank at top
90° → Right crank forward

0° → Right crank forward
90° → Right crank down.

once again for the stoker (B2 and C2). In drawing C2 the curve has been shifted 90 degrees (1/4 crank revolution) because the cranks in Set C are 90 degrees out of phase. As in Set A, the first two curves of each set are added together to give the third (darkened) total force curves.

Drawing B3 shows how the force fluctuates while producing a certain average force required to propel the bicycle, and drawing C3 shows another fluctuating force which produces the same average force. It can be seen that the force for the in phase cranks (drawing B3) reaches larger maximum values and varies quite a bit from maximum to minimum. In contrast, the force for the out of phase cranks (drawing C3) never reaches as large a maximum value, and is applied in a much steadier fashion. The out of phase crank bike gets treated much more gently.

If the stoker and driver are not of the same strength, say the stoker is not as strong as the driver, drawings B2 and C2 will be reduced by a certain fraction: The net result is that the extremes of curve B3 are not as different while the extremes of curve C3 become greater. The limiting case of a very lazy stoker (or driver! - ed.) is a single rider. Depending on the relative strengths of the driver and stoker, the curve for an in phase couple will be between curves B3 and A3, while the curve for an out of phase couple will be between curves C3 and A3. The out of phase curve will always be smoother.

However, this may all be academic. If the frame and components are all strong enough so that the force pattern of the in phase bike hardly stresses any of the components, the difference is unimportant. Then other factors may be more important, for instance, energy losses (due to frame twist or bike wobble), other technical considerations and finally, personal preference of the riders. Since many couples ride in phase with success, perhaps bikes are strong enough.

Before I go further, I have to qualify this as arm-chair tandeming. I've just finished our tandem and have only ridden it about 10 miles. Mostly, we keep it in the house and admire it. The weather hasn't been too helpful, either. So I know very little about riding a tandem. But as I read letters such as those by D. G. Hall, and Dick Skelton and Sue Somers in the May issue of Double Talk, I begin to feel that other factors may really be more important than the smooth versus rough force patterns. I begin to suspect that the decision might more properly depend upon rather human (and therefore, sometimes not strictly logical) considerations such as in phase looks better, in (out of) phase feels better, etc. Right now my cranks are out of phase because I feel better about the smooth force pattern.

Perhaps readers would like to know a little about our bike. The frame is homemade, made over this past long Potsdam winter. It is lugless brazed, using 4130 steel tubing, except for the fork

and chainstays. All tubes are 0.049" thick (about 18 guage) and 1/8" larger diameter than corresponding solo bike tubes. The chainstays are standard 531 stays since I could not find tapered 4130 tubing. The fork is a Japanese Tange replacement fork which cost about \$10 less than the parts required to build a fork. I think it will serve our purposes, and the \$10 saving helped keep the bikes's cost closer to the original budget of \$250. (This target was overshot by \$50.) The frame is 23" x 21", ladyback. Frame angles are all 73 degrees, the fork rake is 2 1/2" and the wheel base is 67". I made the wheel base long so that the stoker could be comfortable. We each have only 1 1/2" less handlebar-to-saddle room than on our solo bikes, and are both quite comfortable. The handlebars are a little low for me since I use a 24" solo bike. I wish now that I had fudged a little here and there to get a slightly longer head tube to raise the handlebars. But I thought of it too late. Oh well, next time... The cranksets are slightly modified Sugino Maxy II (5 arm) sets, with homemade eccentrics and modifications. There are two eccentrics for adjusting the front chain, one at each bottom bracket. This made construction much simpler and allowed each rider to share the crankset displacement when the front chain is adjusted. All chains are on the right hand side, and gearing is 52 x 13, 15, 18, 22, 28. The derailleur is SunTour VT Luxe. The brakes are CLB centerpull. The frame and fork assembly weigh 14 pounds, and the complete bike with 5 speed gearing and wired on tires weighs 40 lbs.

To sum things up, it's turned out to be a nice looking bike. We're quite proud of it. It's great to ride, we all love to use it. I'm hoping for better weather so we can use it more.

TANDEM RIDE CALENDAR

Following are TCA sponsored rides and other events of special interest to tandemists. For registration forms and information, please send a self-addressed stamped envelope to the address listed.

- Sept. 3-5 MIDWEST TANDEM RALLY, Kenosha, Wisconsin. Three great days of riding through beautiful Southeastern Wisconsin. The Kenosha Roadrunners. For information, contact Tom Harrington, 10026 63rd Ave., Kenosh, WI 53142. 1-414-694-7079.
- Sept. 11 Northwest Century - slow tandem 50, Mt. Vernon, WA. Mt. Vernon Fairgrounds, 9 AM. Northwest BTS. Bob Freeman, 8405 Duncan Ave. S., Seattle, WA 98118. 206-725-7834.
- Sept. 16-19 TANDEM '77, Lake Waramaug, Connecticut. There will be a choice of gentle and hilly rides that

are both rural and scenic. A two or three day package is available at \$110 or \$130 per couple in a country inn (meals included). Duane Thompson, 58 Ferris Ave., Norwalk, CT 06850.

Sept. 17-18

TCA/L.A. Wheelmen Progressive Dinner, Fullerton, CA. Meet at 10 AM at Sonora High on Palm at Tanglewood in Fullerton for a 50 miler in Orange County, followed at 4 PM by hor d'oeuvres making at Aileen Ware's (537 Breezewood), one block from start; hostel floor available. Sunday ride or serve the first course on the Progressive Dinner which starts at 10 AM from Cal State Fullerton parking lot E, corner of Hwy. 57 and Nutwood.

Oct. 7-10

New England Rally, Newport, RI. One or two "tandem only" rides. Ted Ellis, 154 Taber Ave., Providence, RI 02906.

 TANDEMS FOR SALE

1. 23 1/2" x 21" 531 Jack Taylor Custom Tandem. 15-speed - brand new - tried once. \$1085. George Kramer, 1031 Scarsdale Rd., Scarsdale, NY 10583.
2. Gitane Touring Tandem, 24" x 22". 650B tires, tandem cantilever rim brakes, front and back. Rear hub brake. Fenders, lighting, rear carrier. Gearing: 22 to 97. Comfortable and faithful tourer. \$300. Lester Flink, 203 Schoolhouse Dr., Linwood, NJ 98221. 609-927-5557.
3. Gitane Sports 23" x 20" mens/mixte tandem. Atom rear drum, front and rear cantilever brakes. 36 spoke x 3 front, 71 spoke x 8 rear wheels. Retooled bottom brackets. LeTour tires. \$350. Al Padilla, 777 Hamilton Ct., Carlisle, PA 17013. 717-567-9241.

 TANDEMS WANTED

1. 10 speed tandem for blind stoker and 4'11" pilot. Steve Dubin, 14960 Sherman Way, #A-109, Van Nuys, CA 91405. 213-939-1000.
2. Second hand touring tandem, for touring, moderate price range. 22" - 24 1/2" front, 21" - 22 1/2" rear. Dawn Wiloughby, 201 Adam's Dam Road, Wilmington, DE 19807. 302-655-1143.

FOR SALE

Lay-back seat post, to lengthen rear top tube effective length, \$10. Atom drum brake hub, 36 hole, .080 guage, \$20. Both never used. Malcolm Boyd, 179 S. Sierra Madre Elvd., Pasadena, CA 91107. 213-796-8816.

 TANDEM CLUB OF AMERICA

President: Glenn Zeichner, 1615 Sheldon Dr., Newark, Del. 19711

Secretary: Beth Zeichner, same address.

Vice-President: Darryl LeVesque, 2511 Jonquil Ct., Upland, CA 91786.

Treasurer: Judy Allison, 179 S. Sierra Madre Elvd., Pasadena, CA 91107.

Editor: Malcolm Boyd, same address.

Area Representatives:

Ohio: Ashley & JoAnn Molk, 763 Chelsea Ave., Columbus, Ohio 43209.

Pacific Northwest: Bob Freeman & "E" Garland, 8405 Duncan Ave. S., Seattle, WA 98118.

San Diego: John & Donna Goodloe, 8084 Donzee Ct., San Diego, CA 92123.

Current Membership: 195 tandems

Dues: \$3.50 for individual or tandem team membership from date of receipt to August 1978, prorated once a year (\$2.00 after March, 1978). Double Talk is published bimonthly and a subscription is included with membership in the TCA. All memberships expire as of August 1978.

CA patches, 4 x 4 1/2", \$2.25 each.

Deadline for next bulletin: October 1.

 TCA Membership Application

NAME(S) _____

ADDRESS _____

CITY & STATE _____

ZIP _____

Checks may be made payable to TCA and should be sent to the treasurer.