



**As Fast As Lightning Strikes...
Automotive Technology Changes.**

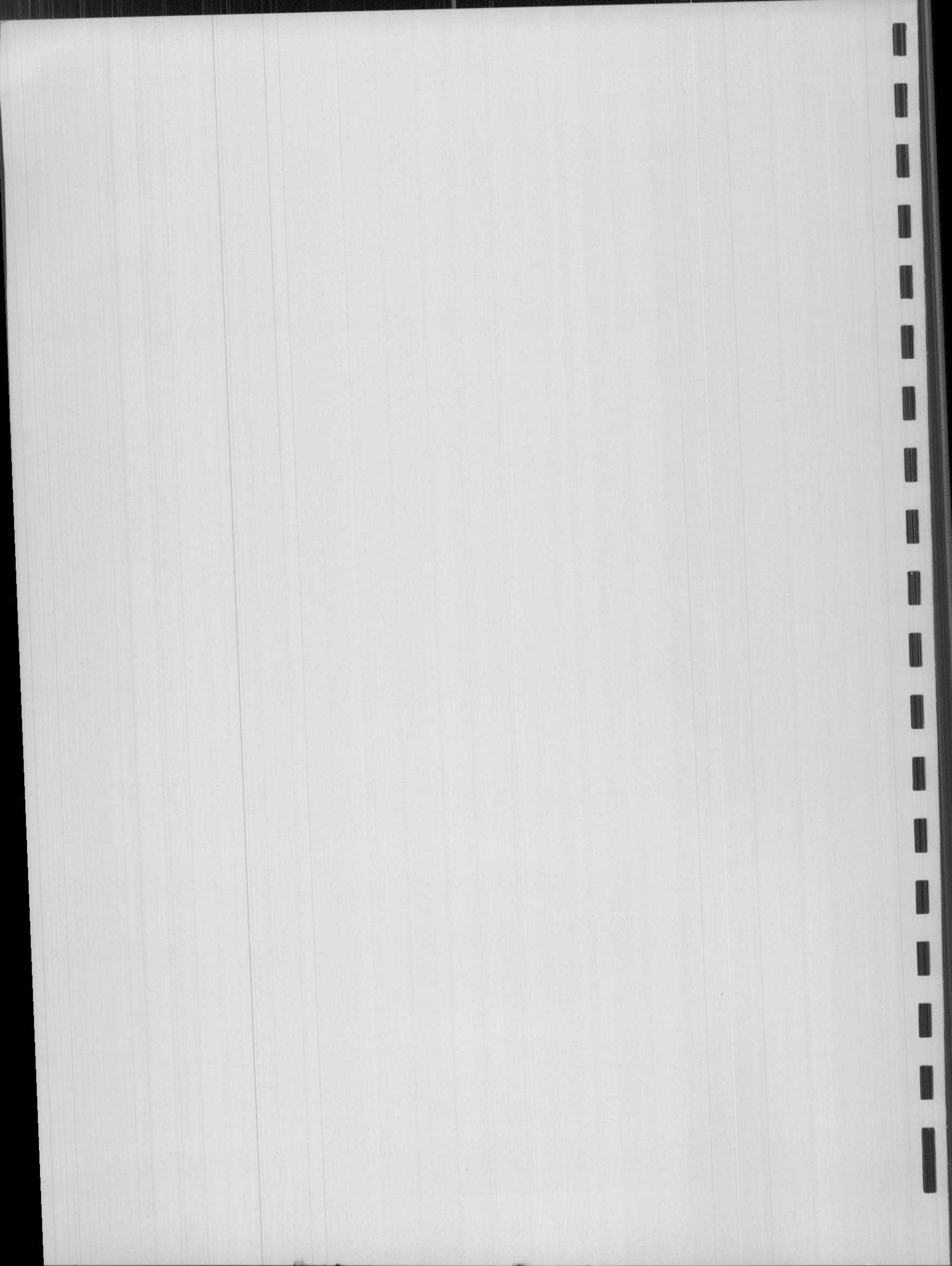


**LBT-139
MAXIMIZE YOUR
SHOP
EFFICIENCY**



"Before everything else, getting ready is the secret of success."

- Henry Ford



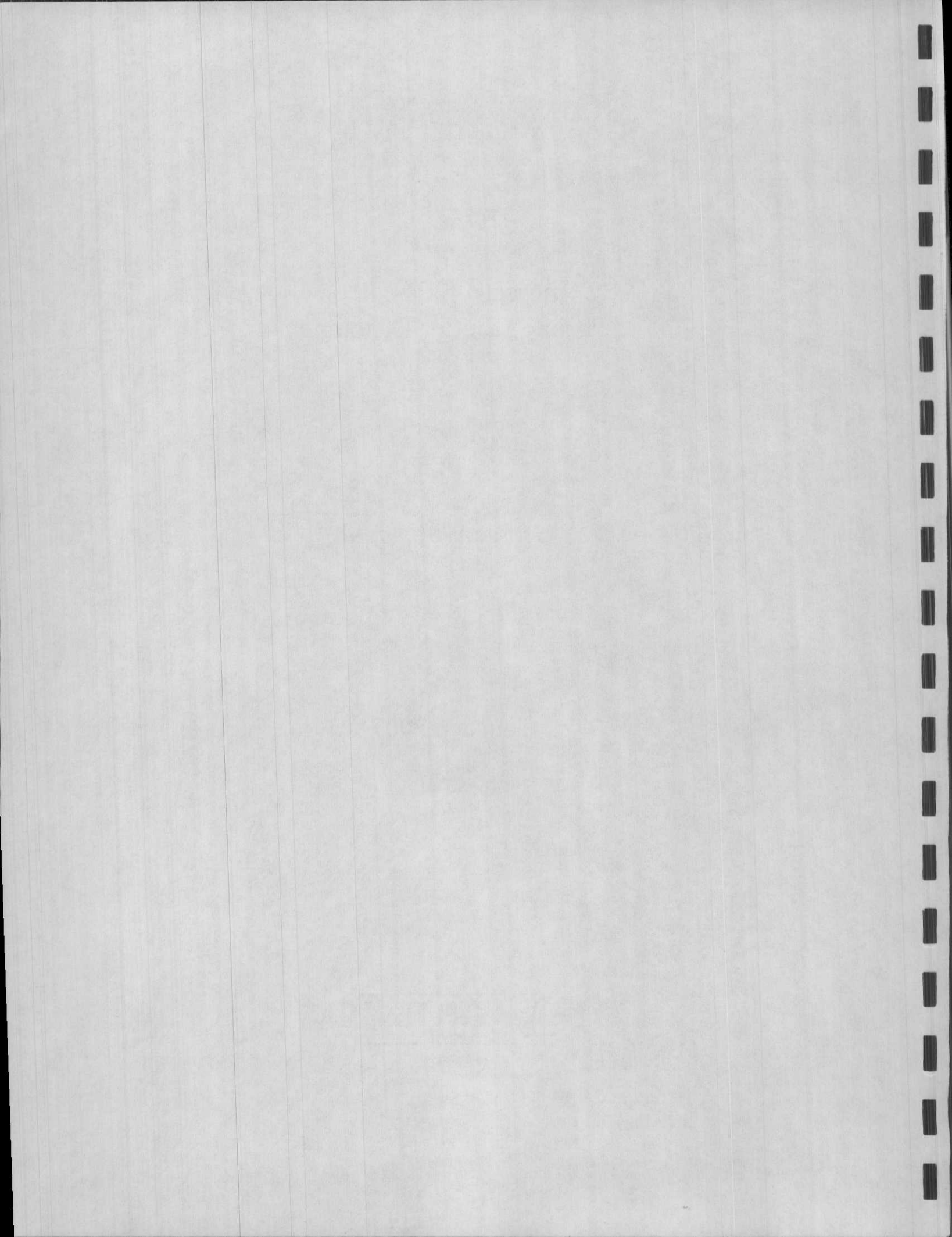
Increase Sales 40%
Through Better Efficiency

by

George Witt, AAM

January, 2007





State of the Industry

The average small repair shop across the country is currently only able to keep its techs actively working on cars about half the time the techs are actually available for work.

This results in payrolls that are either too high for the shop owner or too low for the technician. The average technician only earns about \$30,000 per year.

Given this financial picture, it's no wonder that most shop owners don't have enough support staff to aid the techs and, as a result, techs are on the phone ordering parts, or worse yet, asked to go pick them up, but are not compensated for these activities.

When the shop has a slow week, it's not possible to make up the sales later in the month, which can result in an "off month" financially.

The Industry Standard to shoot for in parts and labor sales per day per technician is \$1,000 to \$1,100. If you have a 3-tech shop, this means you should be able to average \$60,000 to \$66,000 per month in sales, or around \$750,000 annually. If you have a lube tech or apprentice, they should be counted as a half tech, from a production perspective.

Assuming an 8-hour work day, this computes down to \$2.08 in parts and labor sales per minute of tech time. The value of a tech's time is: **\$2.08 per minute!**

Inventory Security

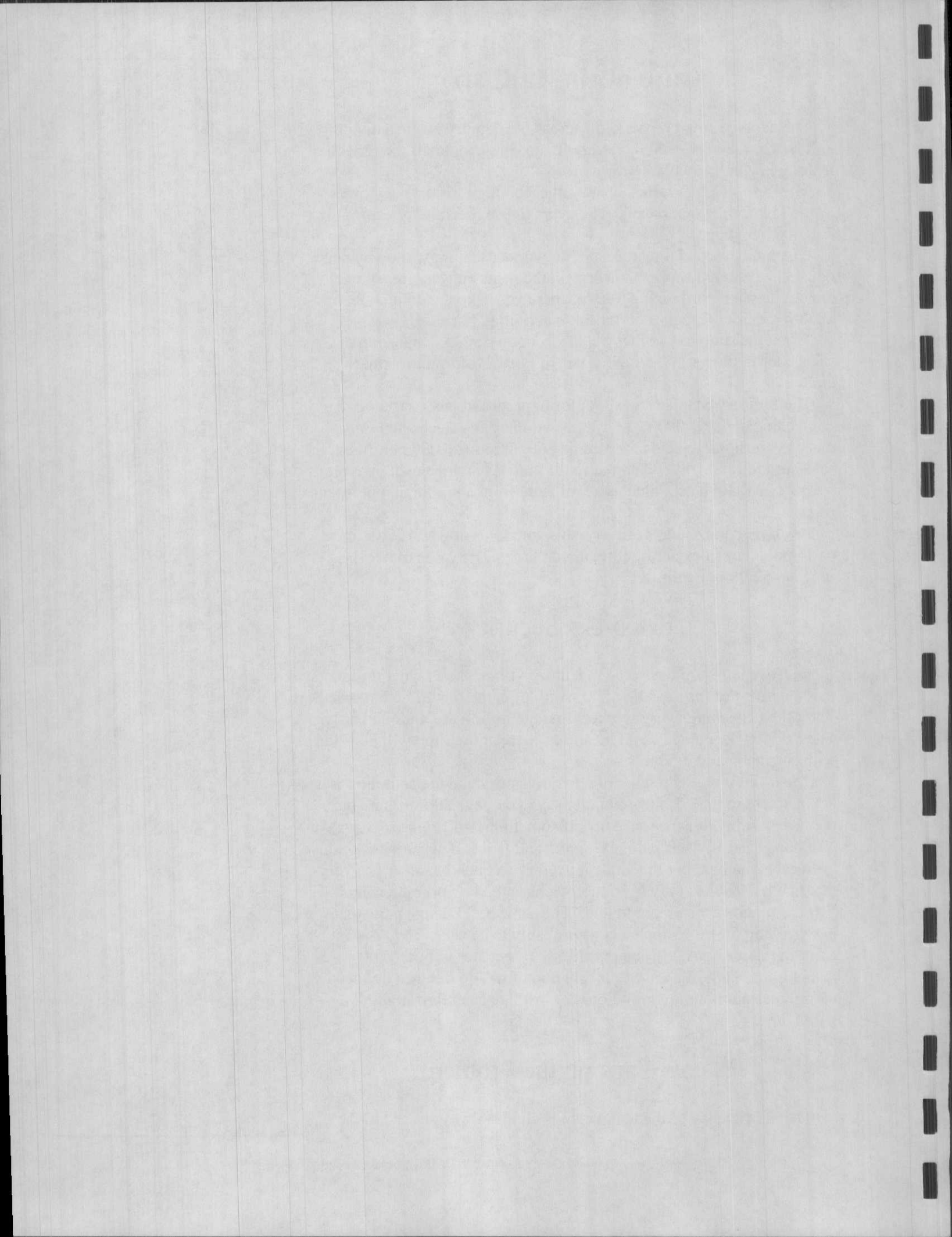
Every repair shop has some inventory. If the shop owner discovers that the inventory is missing \$500 worth of parts, they'll go ballistic. They'll be checking every worker's garage to find the missing parts. They'll lose sleep over it and the atmosphere at the shop will be filled with suspicion and doubt.

Most shops do keep track of parts inventory and the computer is a key element in this. If the computer says you have 20 oil filters but the bin is empty, this is a sure tip-off something isn't right.

Shops basically sell 2 things—parts and labor. The parts inventory is closely watched, but the *labor* inventory frequently isn't. The very fact that most shops only keep their techs actively working on cars half the time is a testament to this. The same \$500 in lost parts that has the shop owner losing sleep is probably lost *every single day* in labor in many shops. If you divide 500 by the per-minute value of a tech's time (2.08), the answer is 240 minutes. 240 minutes divided by 60 minutes per hour means 4 hours of lost labor per day or about a half a day.

Who's Causing the Problem?

The inefficiency of the technician is almost always traced to the



front office, it's almost never the tech's fault. Techs fix cars. They rarely set the rates, schedule the work, order the parts or decide what jobs to take in.

Since techs can't control much of anything except a fixed car, they can't take much of the blame, yet the owner frequently tries to assign some blame to them. Let's forget for a moment who the guilty parties are, it's not going to help fix the problem.

The problem is, we aren't keeping track of our *labor* inventory and we have to fix that. If we can track it, we can control it. If we don't track it, we'll never control it.

Tracking Technician's Time

Productivity

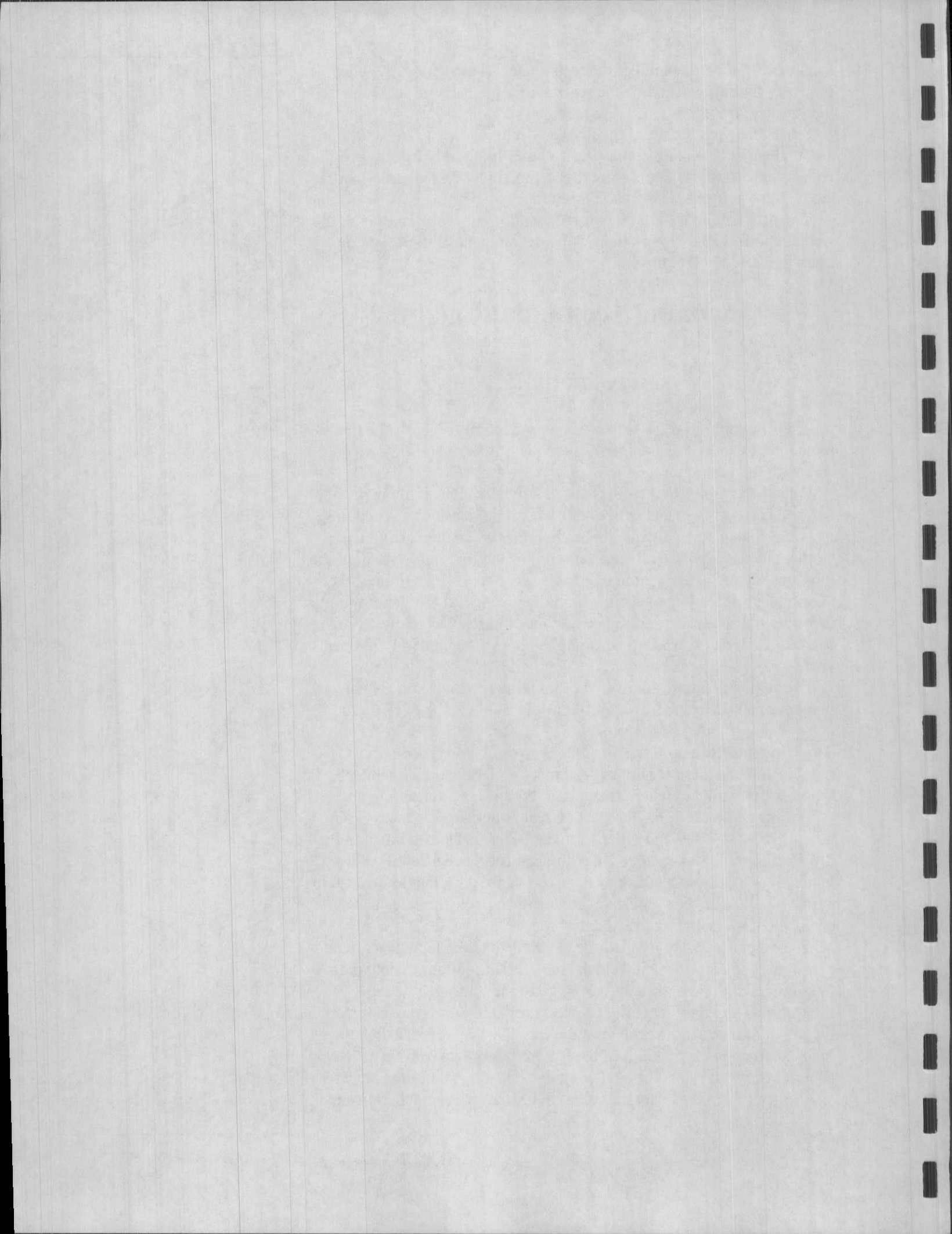
The first thing to track is the tech's productivity. That's the measurement that compares the time the tech is *productively* working on cars with the total time they're *available* for work.

One of the things that would always drive me nuts at my own shop was the fact that the front office staff wasn't aggressive in scheduling, to assure that each tech had a job in their bay when they arrived at work. The techs would all stand around for the first half hour until the jobs arrived and were written up. Let's see, 3 techs, 30 minutes, that's 90 minutes spent by the group, waiting for work. At \$2.08 per minute, that little half hour that didn't seem to mean much was really worth \$187.20 each day or \$3,744 per month and a whopping \$44, 928 per year.

I hope this illustrates the value of tracking productivity. This is the number one killer of sales and profits.

The Nuts and Bolts—Use a time clock to track your productivity. Sam's Club has them for not a lot of money. Get one for each tech. If they have to walk anywhere to get to it, they'll keep forgetting and you won't get good info. Next, call Great American Business Products at 800-231-0329 and order form SA-3287-3 (Daily Time and Payroll Record). These are also called "flag sheets" because they have a bunch of self-adhesive stickers (flags) on them, designed to insert into a time clock. The tech clocks on and off then peels the flags and sticks them to the back of the repair order.

The flag sheets stay by the time clock. When the tech gets the repair order and car keys, they clock "on". It's important to note that this should be done before they even go to the lot to get the car. The time starts when they leave the bay to "start" the job. They stay "on" the job until they stop working on the car. This can occur when they reach a stopping point and turn the RO (repair order) back to the SA (Service Advisor) so additional work can be sold, when they have to stop to wait for parts or for any other delay that prevents them from



proceeding any further. When the tech stops turning wrenches, they clock "off" that job. When they start back on the job, they clock back "on". Upon completion of the car, they park the car in the lot and THEN clock "off" on the job. As soon as the tech clocks "off", they stick the flag to the back of the RO and clock "on" on the next flag. Since an RO may have many flags on the back, the tech should make it as easy as possible by placing them neatly in some sort of order.

TECHS: Now, you've clocked "on" on a flag but it may not immediately apply to a job. Either you get the next job right away, in which case that flag goes to that job, or you wait for another job. If you have to wait for anything, that's what that "on" flag is recording. When you do get the next job, clock "off" on that flag and put it in the appropriate section on the Time Report form in the back of this book. This will help the shop identify the lost labor. This is only the first step in solving the problem of wasted productive time.

There should be no gaps in the time clocked on the flags. Techs keep the yellow copy of the flag sheet for their records and turn the hard copy and the Time Report form in to the office at the end of the day.

NOTE: The techs don't need to make themselves crazy if they get pulled off one job for a minute to do something else. You're just after a basic accounting of their time. This is the main reason they should each have ready access to a time clock (within a few steps).

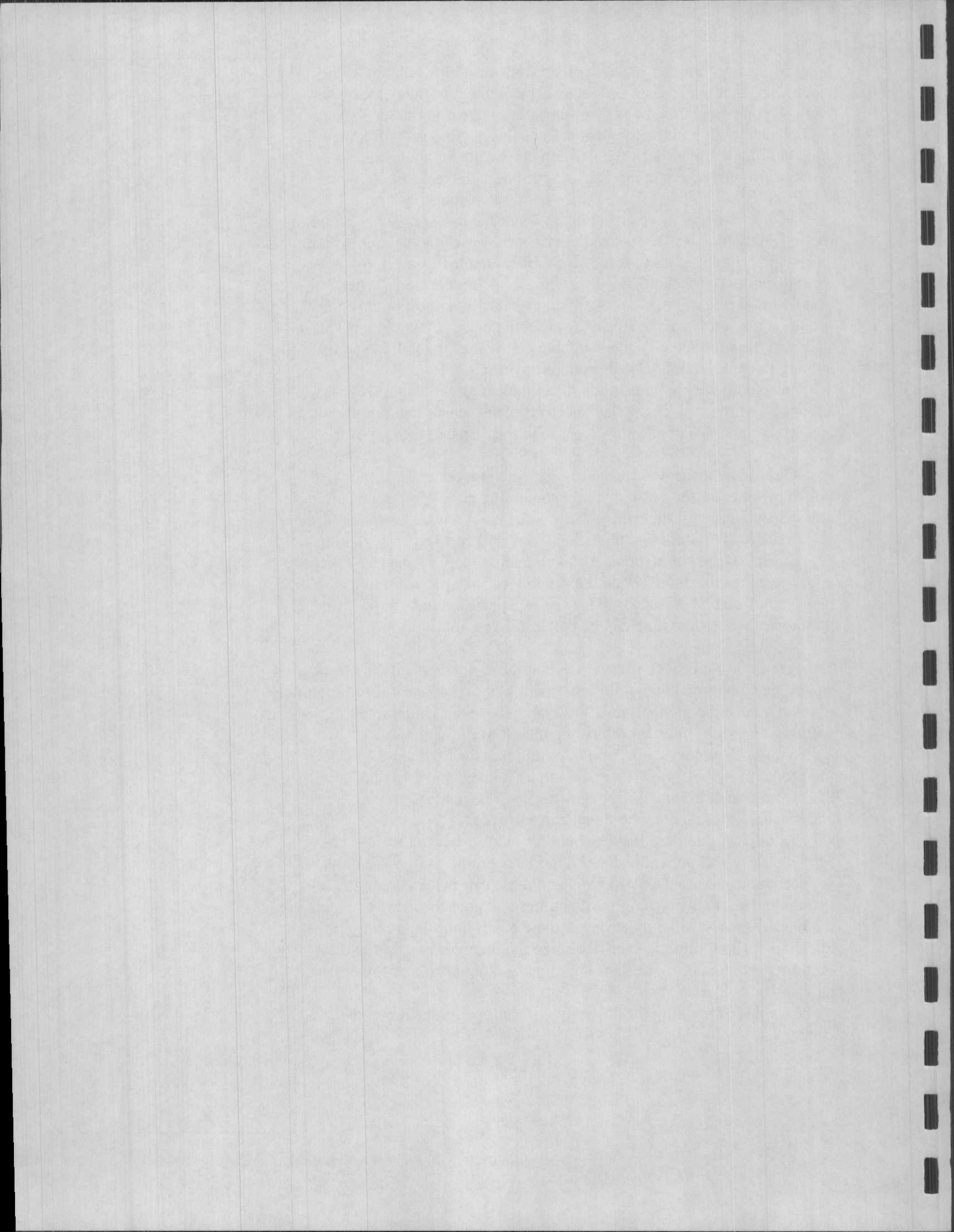
TECHS: Once again, don't make yourself and everyone else crazy with this time clock stuff. You don't need to clock out to go to the bathroom, for Heaven's sake. This is just a basic exercise in tracking time to see where lost time can be better utilized, that's all.

Expected Outcome—Total time spent at the shop, available for work, should be compared to the total time spent working on cars. Productivity can never be higher than 100%, no matter what, unless you're working on stuff while you're driving to and from work. ☺

If you're like most shops, you may find that the early days of tracking productivity will show your shop to be in the 50% range, and there's no shame in this. Improvements can't be made until you first understand and measure where you currently are.

The industry standard is 90%, but that's extremely difficult to hit. My own shop will generally run around 80% productivity. We only service Honda/Acura/Toyota/Lexus and these car owners are quite demanding. Nearly everything we do comes and goes the same day and it's our mission to run out of work around a half hour to an hour prior to closing. I'm willing to sacrifice some numbers for my staff and for customer satisfaction. The staff approves and our customer loyalty rate is off the charts.

Examples of tracking productivity will follow the section on Efficiency.



Efficiency

This is a measure of how much time the tech *spends* on the car compared to how much time is *billed* on the car, or time vs billed hours.

The tech really doesn't have a lot of control over this part either, despite what many in the industry may think. Big factors in low efficiency involve using the time straight out of the book (when it's not a realistic time), lack of good service information, lack of equipment or equipment in poor condition, difficulty finding the right shop tool, poor working conditions, failure to charge adequately for inspection and diagnostics and poor judgment on which jobs should be taken in and which shouldn't. Not a single one of these are things the tech can really control.

The industry standard for efficiency is 110 to 125%. In other words, for every hour the tech is working on a car, the goal is to bill 1.1 to 1.25 hours (or labor units). This is commonly known as "beating flat rate".

The basic idea is that the average technician should be able to perform a job in about the same time as the "flat rate" time listed. This is assuming they don't have air tools and haven't done this job a thousand times before. Those 2 factors should speed things up.

Book Time—It's been my experience that many of the times in "the Book" can't be realistically achieved by most techs, let alone average ones.

Let's remember that the front of the Book says "Labor Time Guide", it doesn't say Bible or Holy Script. It's a guide, nothing more.

I'm not going to get into pricing strategies here, that's a completely separate topic and another class entirely. Let it suffice to say that every shop should have many different labor rates, so times don't always equal the same dollars.

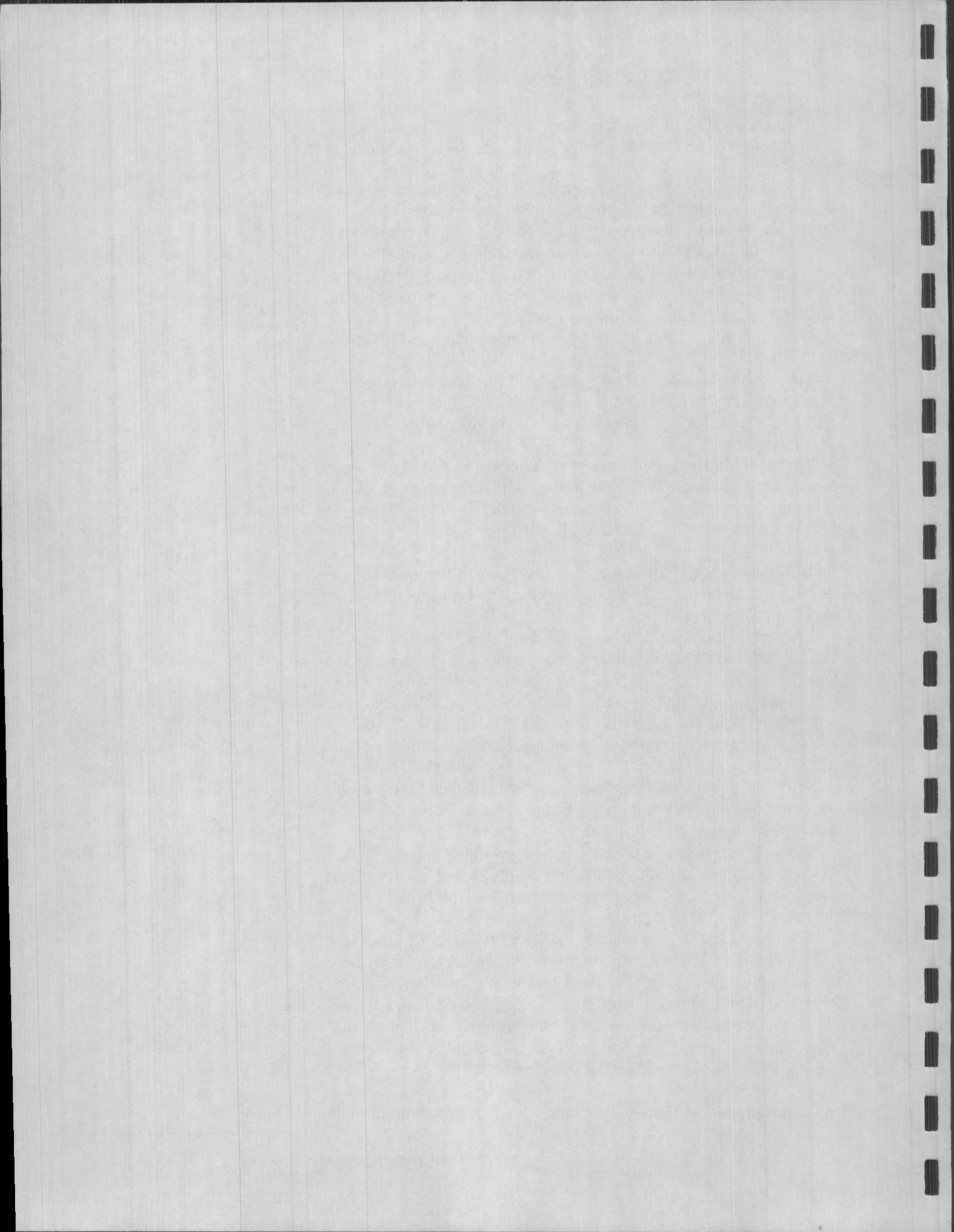
Since the times in the Book aren't a reliable method for determining your pricing, it's even more important to track the tech's time on the job for future pricing strategies.

The very first time you do any job, be prepared to get educated. You may lose your shirt or you may hit the profit jackpot. It's important to save these jobs in kits so you can refer back to them the next time you do that job.

You should start with a basic formula for pricing strategy. If you add an additional 25% to Book time, you may not be too far off base on most things. Example: The Book time shows 2.0 hours. To add 25%, you multiply the 2.0 hours by 1.25 and you get 2.5 hours.

You'll also need to add additional time for older cars that are rusty. **You** didn't rust the car, you shouldn't have to subsidize the time spent dealing with rust penetrant on stuck fasteners.

What's Included in Time—The "time" should start ticking from the



minute the tech leaves their bay until the car is done, parked out back and the tech has finished writing up the paperwork and returned to their bay. That's the total time for the job, including the time for road tests. Noises require 2 road tests, one before, to hear the noise, and one after, to verify the noise has been repaired. I don't see how anyone can quote an initial charge at less than .5 for any noise complaint, due to the road tests alone.

Involve Tech in Estimate—If you're putting together an estimate for a job you've rarely (or never) done before, talk to your tech and make sure they think the time is OK before you talk to the customer. Your tech may have previous experience that can help you be fair on your pricing. Remember, the basic idea is to be fair to the shop and to the customer with all pricing. Customers will go away if the pricing is too high and the shop will go away if the pricing is too low. Always strive to be fair and realistic.

Doing the Math

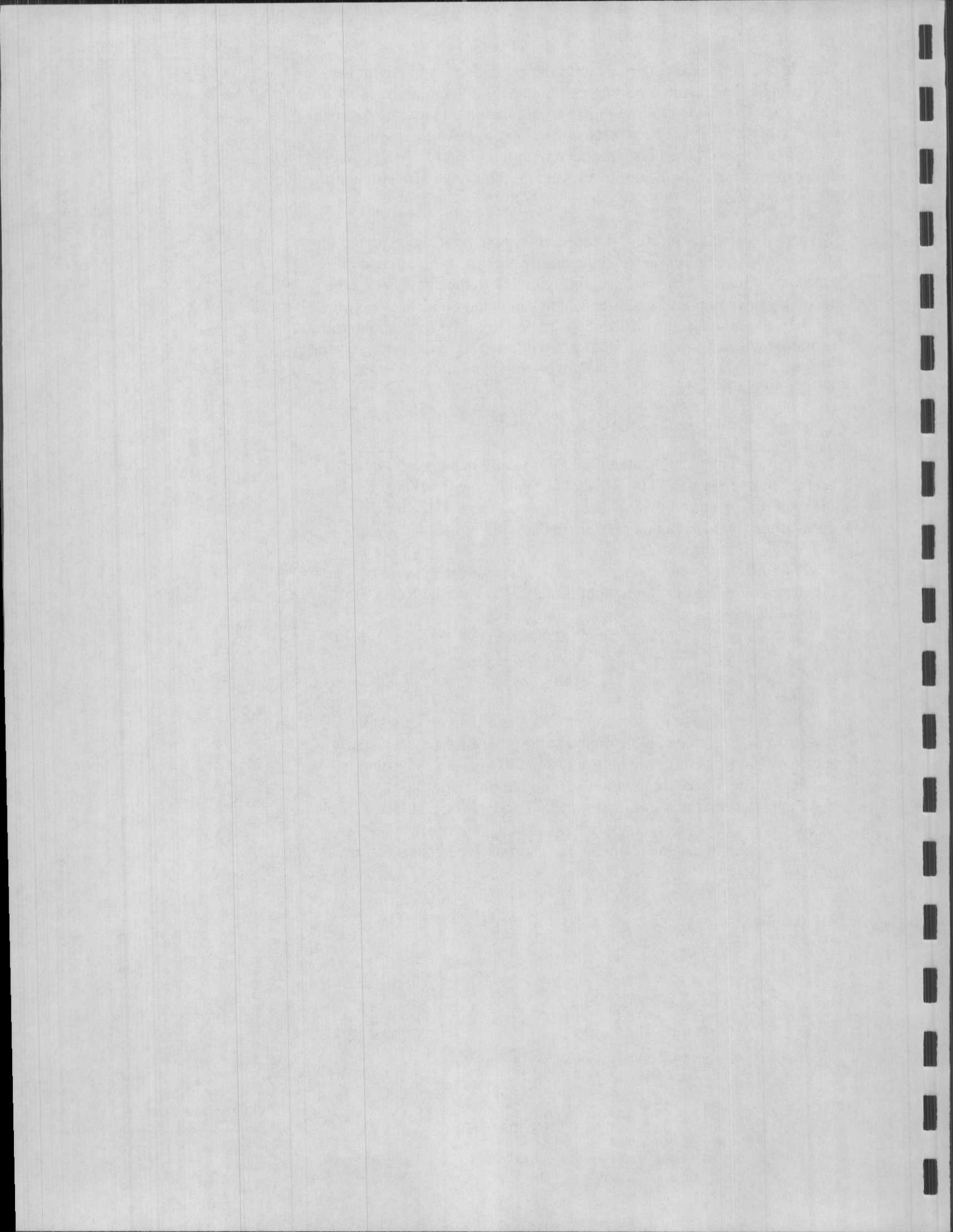
Raw Data—The tech puts the time flags neatly in some sort of order on the back of the RO. The SA should total up the time flags to get the total time spent on the job and put that on the front of the shop copy of the RO. If Frankie does the job, the SA writes FT—2.4, F—3.0, \$180 on the front.

FT stands for Frankie's "time spent", F stands for Frankie's "hours billed" and the \$ is the "total labor dollars billed" to the RO.

It looks like this:

FT—2.4
F—3.0
\$180

This makes it easy for someone to enter this data into a simple daily spreadsheet that can be totaled at the end of the day for a daily report. Writing the info on the front of the RO is also a constant reminder for the SA as to how they're doing at estimating jobs. It's a good idea to keep track of billed time and dollars for each SA, as well. Their score is every bit as important as the tech's score, as they're both playing on the same team and the shop must be consistent on pricing.



Here's a sample day for Frankie and Louie:

Frankie		
Time Spent	Time Billed	\$\$\$
.8	1.0	65
.5	1.0	70
3.0	2.1	140
2.5	4.0	268
6.8	8.1	543
Louie		
1.5	1.0	65
3.2	2.5	130
.4	.2	12
5.1	3.7	207

Frankie's Productivity is _____ and his Efficiency is _____.

Productivity—divide Frankie's "Time Spent" (6.8) by the total number of hours he's at work (8.0).

Efficiency—divide Frankie's "Time Billed" (8.1) by the "Time Spent" (6.8).

Louie's Productivity is _____ and his Efficiency is _____.

Together they (the shop) spent a total of 11.9 hours working on cars, billed a total of 11.8 hours and produced total labor sales of \$750.

The shop's Productivity is _____ and its Efficiency is _____.

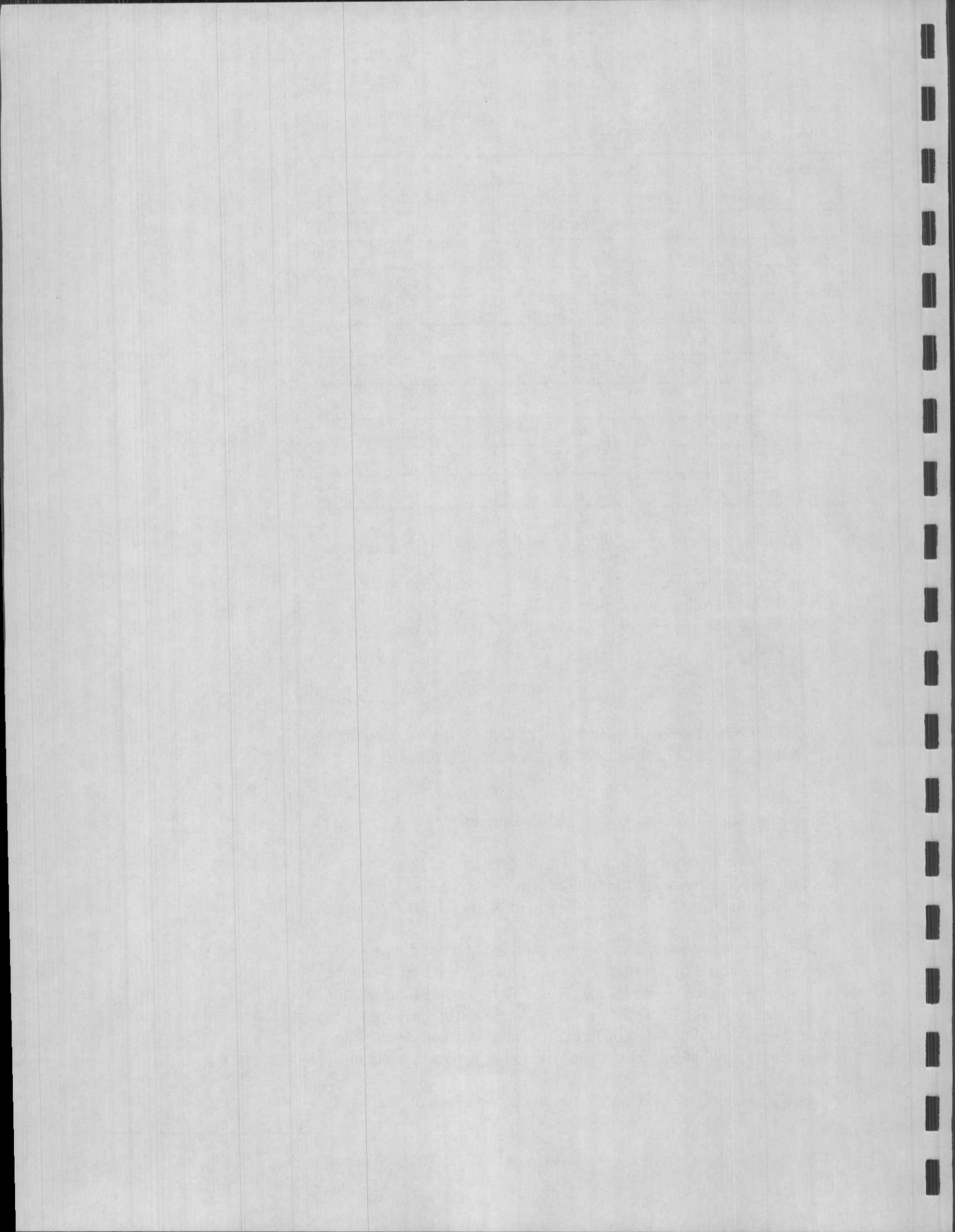
Frankie's productivity is 85% and his efficiency is 119%.

Louie's productivity is 64% and his efficiency is 73%.

Together their productivity is 74% and efficiency is 101%.

At first glance, it looks like Frankie is on the ball and Louie isn't. However, we don't know what work assignments each had, when the work arrived or what resources they had. When we finish the section on what the shop and the techs can do to increase efficiency, you'll be able to come up with a lot of different ways this day could have happened and it may have nothing to do with either worker's talent or motivation.

Also, the numbers combined for the shop don't look all that bad



either, but looking at the individual's numbers shows considerable room for improvement. This is the reason it's important to track *both* efficiency and productivity *and* individual techs.

Common Obstacles

The Short Cut—This all seems like a lot of work and isn't at all exciting. Many will track sold hours and compare that to hours billed and try to come up with some combination of productivity and efficiency called "proficiency".

Productivity and efficiency are totally different things with totally different causes and solutions. Trying to combine them just doesn't really give you enough information to solve anything.

The Evil Shop Owner (ESO)—Some in our industry will accuse those who use time clocks as ESOs who seek to reduce personnel to numbers and have no heart at all. The truth is, this is a simple business exercise and involves getting the most out of your shop operation. As the shop becomes more efficient, there's more money to go around. More money means greater pay rates for techs and SAs, better equipment and information systems *and* lower pricing for customers.

An inefficient shop operation needs to have a higher labor rate than an efficient one, since fewer hours are billed.

Techs Fear the "Stamp Collection"—If you walk in the back door with a bunch of time clocks and flag sheets, your techs will go into paranoid shock and will deliberately work to subvert the information, making it useless. They'll fear that you'll cut labor times, accuse them of incompetence and about a million other things that aren't good.

The real deal is, the time clock is the tech's best friend and, properly used, will solve every complaint that the techs have about the way the shop is run.

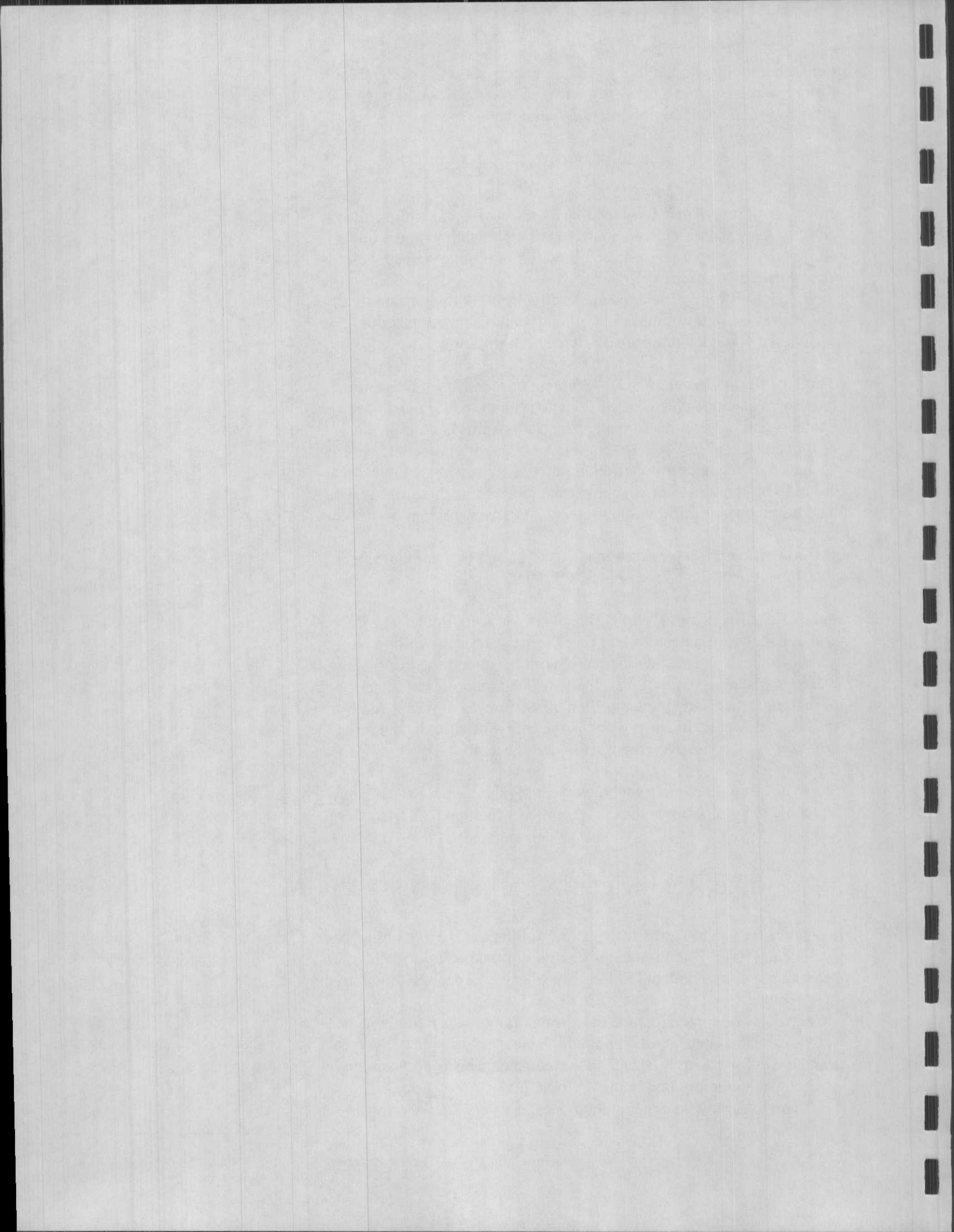
If you get to know techs who work in highly efficient shops, they welcome the use of time clocks and consider them to be a friend, not an enemy.

The Real Meaning of All This

Kaizen*—If you look this word up in "Wikipedia" (a free online encyclopedia), you'll find it means "change for the better" in Japanese, "continuous improvement" in English. It's an approach to productivity improvement.

The goals of kaizen include the elimination of waste (defined as activities that add cost, but do not add value), just in time delivery, standardized work, right-sized equipment, etc. This is very similar to studying an assembly line in mass production.

If you look at what a repair shop does, it's very similar to an as-



sembly line. Every tech is a machine that needs 1) a steady flow of cars, 2) parts and 3) information. Any disruption of any of the 3 slows or stops the process and reduces the output. Poor quality work, parts or information also reduces the output with comebacks, which are very disruptive for the shop and very irritating for your customers.

Kaizen must be practiced with “respect for people”. In fact, when properly implemented, kaizen makes everyone’s job easier and less stressful. It results in superior working conditions, higher pay, greater respect and self-esteem, improved worker loyalty, lower staff turnover and higher customer loyalty.

Three principles must be firmly in place: process and results (not results only); systemic thinking (big-picture, not solely the narrow view); and being non-judgmental, non-blaming (because blaming is wasteful).

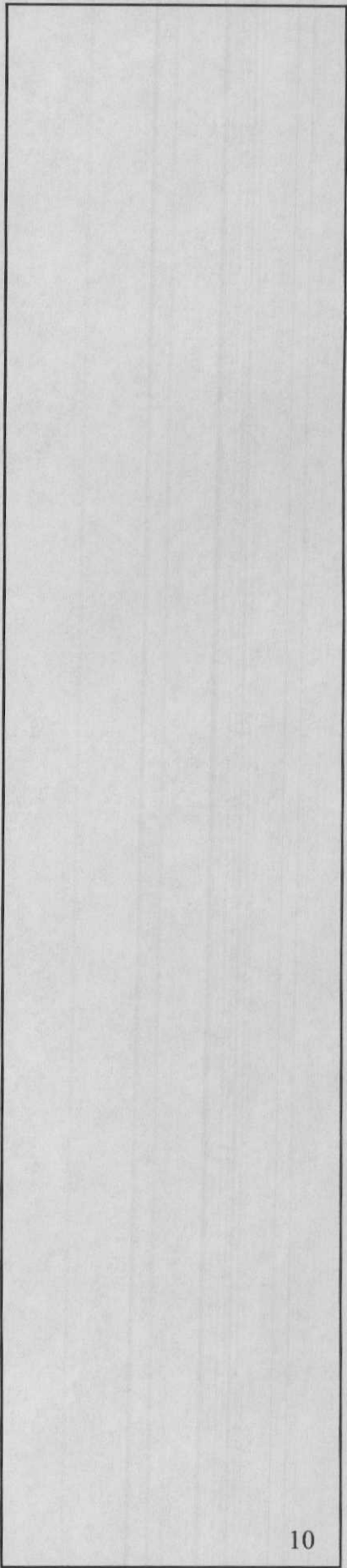
The only true way to understand the intent, meaning and power of kaizen is through direct participation, many, many times.

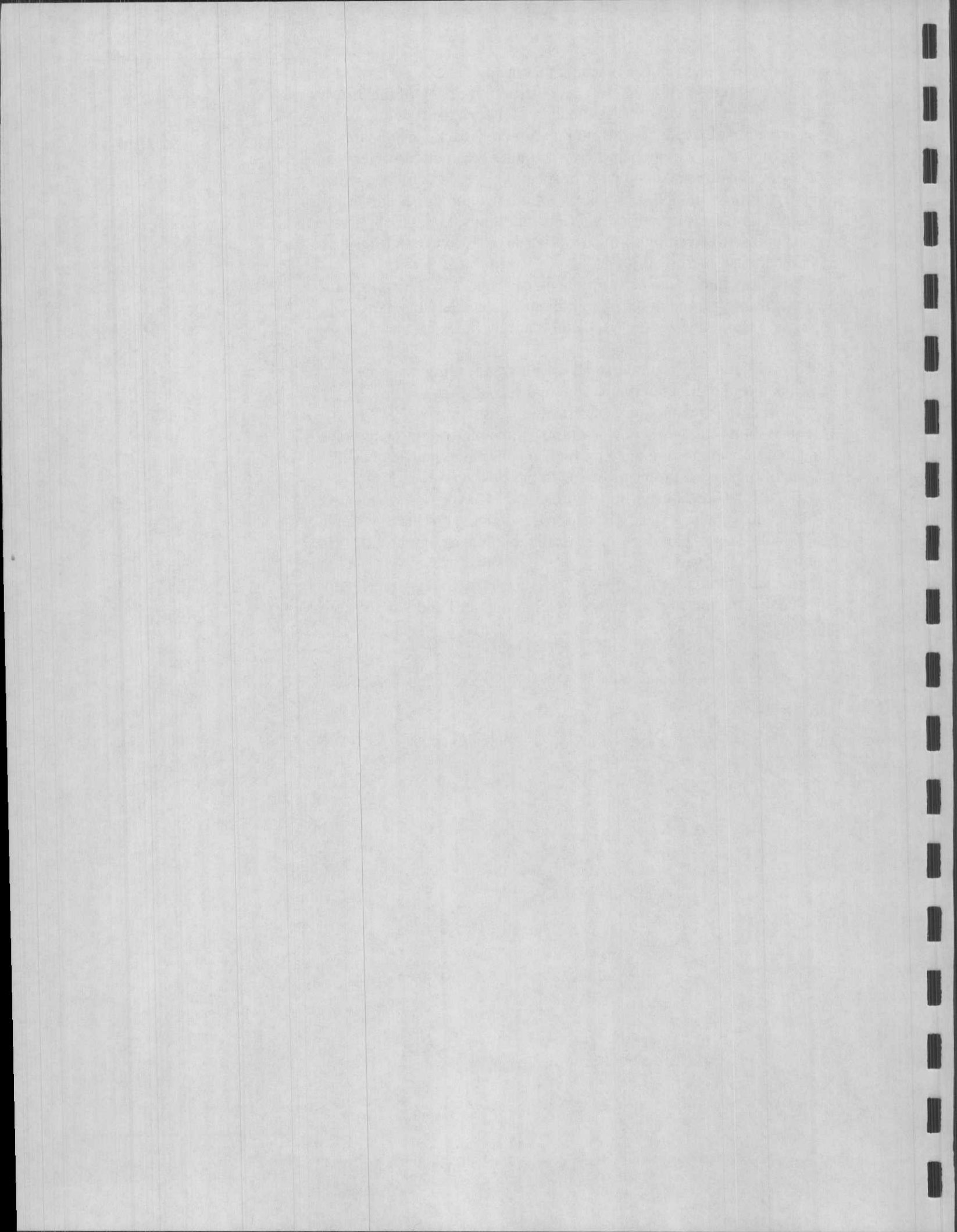
*Information is paraphrased from Wikipedia.

Those shops and workers who embrace this philosophy will understand that time clocks are the only logical solution to inefficiency and are one of the greatest tools available to the auto service industry.

After all, wouldn’t every tech’s dream be to have good work lined up all day long, with a steady flow of parts delivered to his bay and to be left alone to get it all done in a manner that makes him proud? This is how it gets that way.

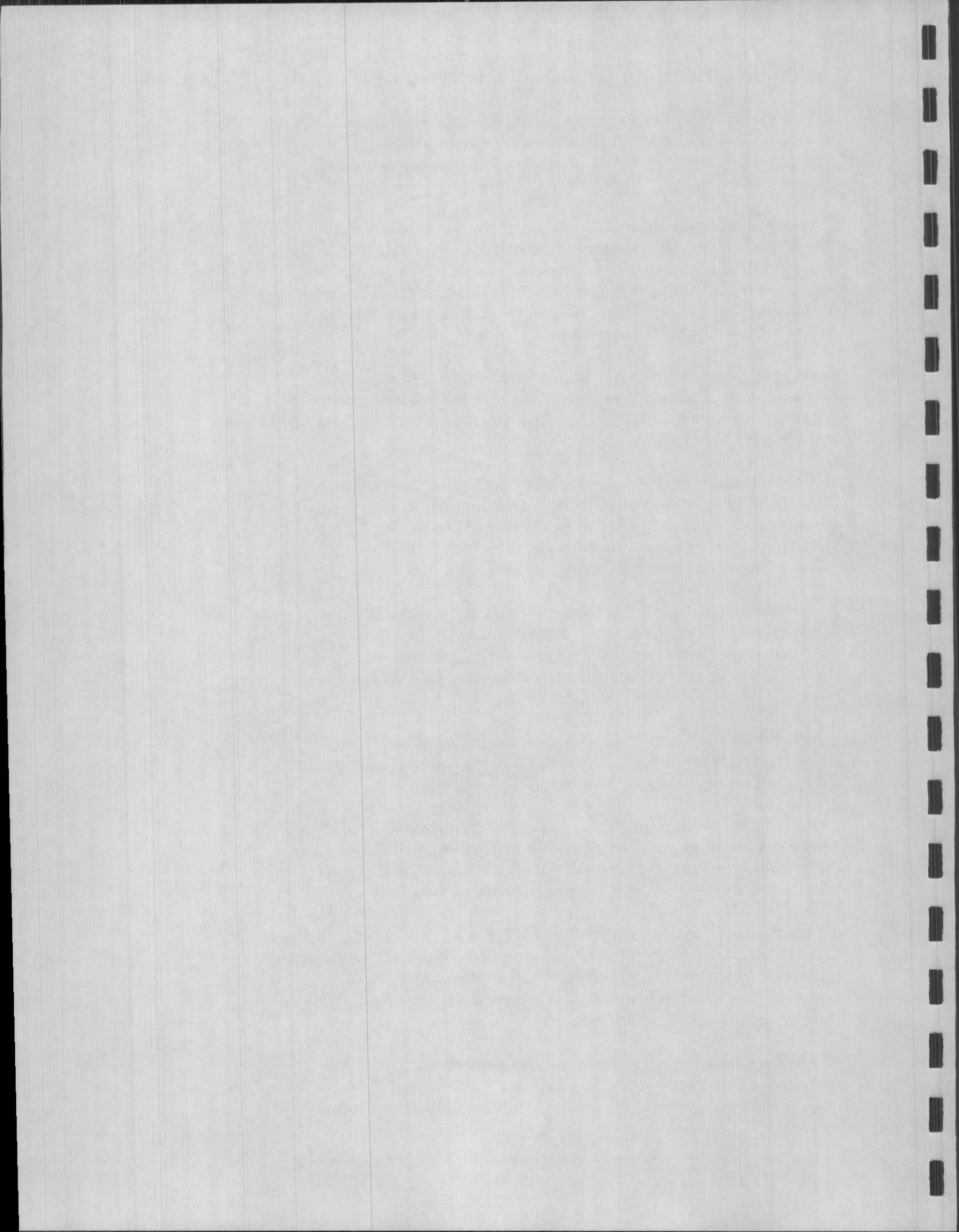
Now, let’s look at how time is wasted and at 50 things you can do to reduce waste and stop making yourself, your staff and your customers crazy.





What the Office Can Do to Make the Shop Efficient

1. Use an appointment system to spread out customer arrivals and properly load the shop for the day. Allow enough unsold time for up-sells and emergency work. We typically book 60% of our available time.
2. When taking appointments, keep track of hours available to sell for each technician. This provides a reasonable work load for each tech and will insure the maximum production output for the whole shop. Involve the techs in the scheduling when appropriate. They're the ones doing the work; if some judgment is needed, they should be able to tell you whether they can take another job.
3. Assign each job to the technician best suited for the job *at the time of appointment*. This puts your best tech on each job and increases efficiency and work quality. The last thing you want is a tech on a job that might be "out of their element".
4. Develop Customer Questionnaires when the tech needs to know "What does it do and when does it do it? How long has it been doing it? and so on". Your main mission is to keep the techs moving by providing them with 3 things: cars, parts and information. The better coordinated that is, the more efficiently everything will flow.
5. Do your best to leave the techs alone while they're working. Schedule things so that once a they start a job, they're allowed to stay on it, undisturbed, until completion. The more interruptions, the slower the work progresses and the chances increase for a serious mistake.
6. Set up a Job Rack with a slot for each tech. Place it where they can easily see it from their bays. As soon as the RO is written up, place the RO and the keys in the tech's slot.
7. Pull all parts for each job the day before the car arrives. Put the needed parts in boxes with the customer's name on them. Build a shelf for the boxes near the job rack. All the tech should have to do is grab the RO, the keys and the parts box and head for the car.
8. Any parts that have to be ordered should arrive a day ahead of time. If needed, have the tech check the parts before the car comes in. If an incorrect part arrives, you can call the customer and reschedule the work. This will not only make the shop more efficient, it will make your customers much happier.
9. Any car with a noise or performance complaint should get a road test with the customer to verify the complaint before the customer leaves. Tell the customer to allow time for a short road test when they



call for the appointment. If you can hear it, you can fix it. If you can't hear it, you'll waste all day on the wrong noise. This is one of the greatest sources of wasted time and disappointed customers in most shops.

10. Be extremely aggressive to insure that each tech has a job to work on as soon as they report for work. As the day fills up, if the morning job isn't there, tell callers that the only time you have left is early morning. Maybe they can drop the car off the night before.

11. Utilize "job kits" in your computer. You should only have to put any job together once and then it should become a job kit. If you ever do it again, you'll know every last little nut and bolt it takes and you won't get held up over a nickel part you forgot you needed. That's usually the part you don't have in stock and no supplier within a 50-mile radius has it either.

Name job kits according to the part replaced first, then the year and model of the car to which it applies. Example: Brake pads front, 1998 Accord 4DR LX. This makes it quite easy to find out if you have a kit made up or not when that job comes in again.

12. Allow the techs to arrange the shop equipment. Tell them the shop is now theirs and they can arrange it any way they want. They are the ones doing the work, they should decide the most efficient arrangement of equipment.

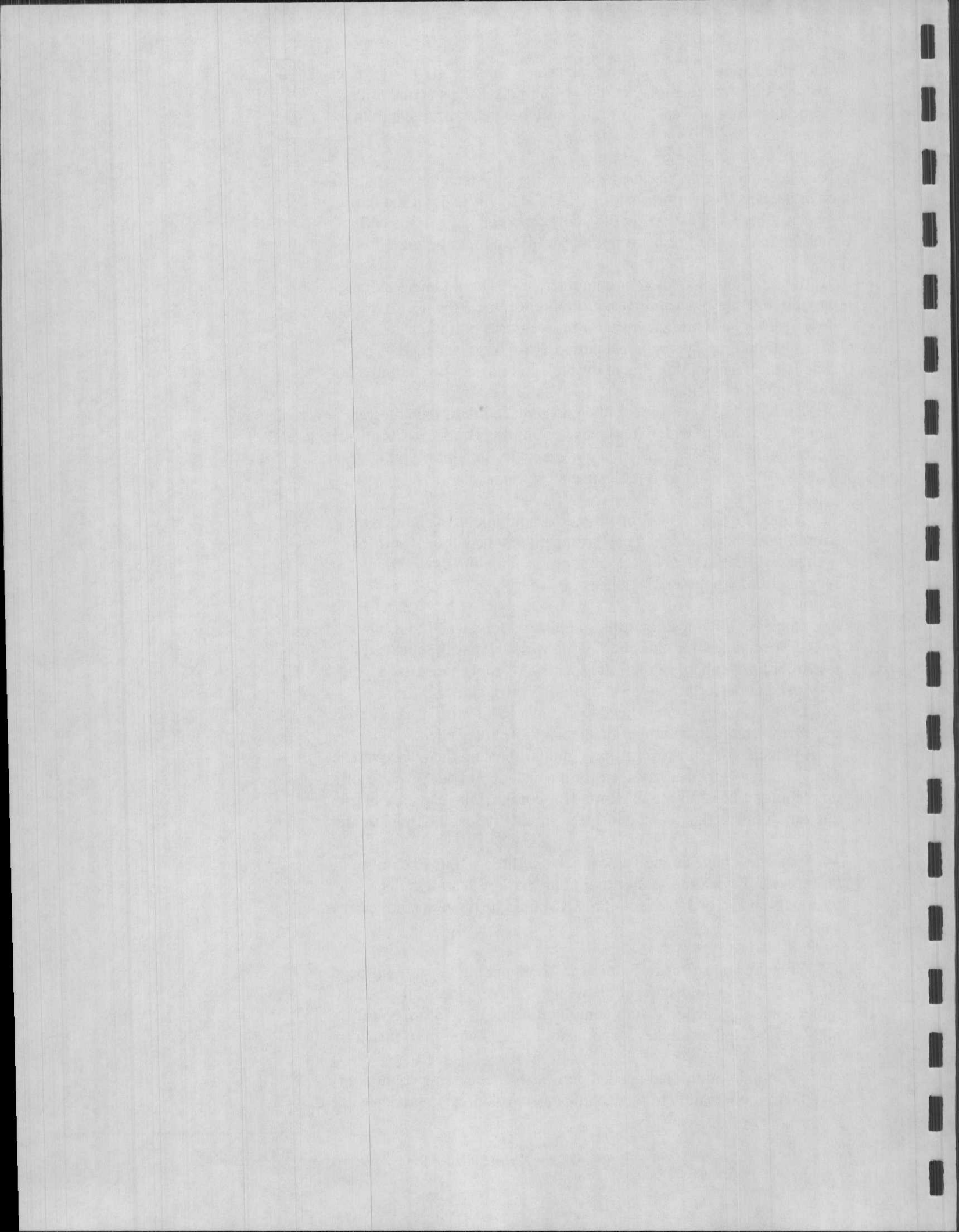
13. Consider buying some roll-around carts for special tools. We have a special cart for air conditioning work. It has the refrigerant identifier on it and all of the little special AC tools and parts a tech may need to perform AC work, including refrigerant oil, schrader valves and caps. You may need to set up a cart for driveability work or other jobs where a number of special tools are needed.

If you end up with several carts, mount flags on them with tall masts so they can be easily seen from a distance. The AC cart, for example, might have a blue flag on it (for cold). If the carts are in use and out of place, they can be located quickly by just looking around.

14. You can't have enough assortments of little things like nuts and bolts, cotter keys, drain plugs, drain plug gaskets, screws, electrical terminals and so on. The assortments should be open to ready access by the techs.

15. Give the techs time to fix the car when making the appointment. No one can fix a cold start problem on a warm engine while the customer waits.... Any cold start complaint needs to be dropped off the night before so the tech has a completely cold engine from the start.

16. As soon as additional needed parts arrive, check the count then take them immediately to the technician's work area. You don't need



the actual parts to bill them out, all you need are the parts invoices.

17. Assign promise times based on the ability of the shop to do the work, rather than what each customer wants. If any customer needs their car back right away, arrange for them to drop it off the night before or be the first to arrive. Once the techs have started on the first cars, production has to be done in an order that produces the most work that day for the shop. This serves the most customers and protects the interests of the shop. Don't let the customers make you crazy. We can do that ourselves, we don't need any extra help.

18. List the "sold" time on the RO for each labor line. Techs don't keep track of time, they fix cars and will stay on a problem far longer than the SA ever intended. This is the main cause of hard feelings between techs and SAs. The SA writes a symptom and figures they'll charge .2 for a quick look to see what's involved. The tech dives in and spends an hour and fixes it. Now, the SA doesn't feel comfortable confronting the customer for the money, since they didn't really discuss **that much** money with the customer on that labor line. Your shop just lost revenue and 2 people may have hard feelings.

The fix is simple. If every labor line has the amount of sold time listed, the tech now has a very clear idea how much time to spend and when to stop.

It's even recommended that each tech should be provided with timers (with an alarm or dinger), to alert them when "time's up".

19. Be sure your shop has really good information systems. Systems is plural because there's not one system that works in all cases. In most cases, the Factory Information System over the Internet is the finest way to go, but this may be too pricey.

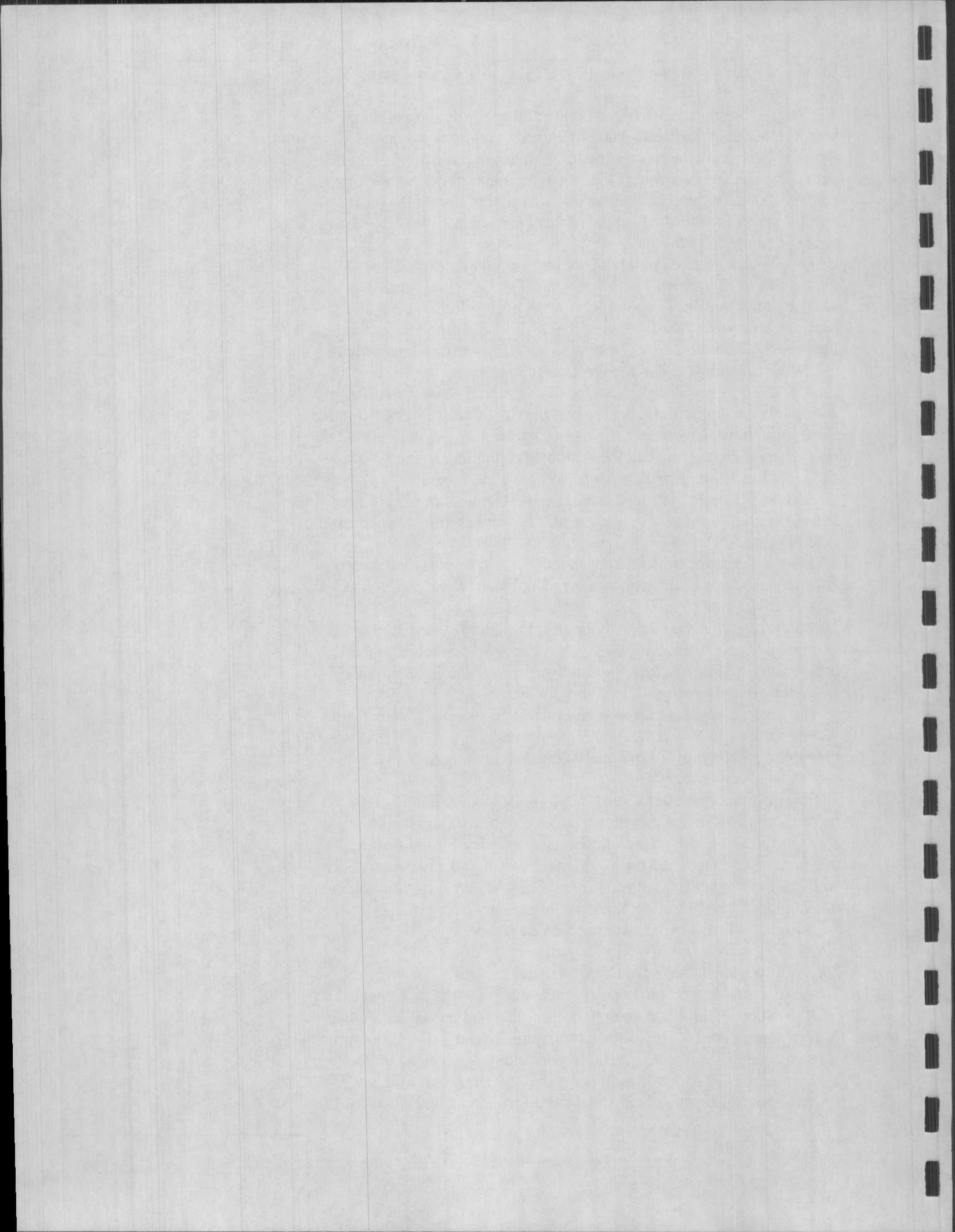
However, many of them have reasonable access costs. Honda and Acura, for example, will sell you 3 days access for only \$20. As we now know, that's only 10 minutes of head-scratching time to achieve the "break-even" point. ☺

The information systems must not only be available, they have to be readily accessible. To expect the tech to walk 100 feet and wait for someone else to finish ahead of them is a sure way for the systems to never get used. Our shop has a computer server and a network. Each tech has their own terminal right in their bay. There's no walking and no waiting. This is efficient and pays big money over time.

Information isn't expensive, it's a money-maker.

20. Narrow your focus—Don't take in strange stuff. This is a hard lesson to learn for too many shop owners and, in some cases, techs.

If the shop is empty, the temptation is great and the same rationale is always presented. "Hey, it beats standing around". No, it doesn't. It seems that as soon as you're up to your elbows in trouble on the job, a bunch of good, profitable stuff shows up that you have trouble getting done because your space, time and effort is now taken up fixing



that oil leak on a weird aluminum Cadillac engine that you've never seen before in your life. And, if the car Gods bless you, you'll never see again.

Decisions made after the spoken phrase "Hey, it beats standing around" rank right up there with what happens right after the spoken phrase, "Hold my beer and watch this!"

Some shop owners succumb to the pressure of the "rent's due" and some techs are too quick to think "they can fix *anything*".

Following the basic concepts of kaizen, the best thing for any shop to do is to seriously narrow its focus to getting the work in their bays that they're best at doing. The less time you spend scratching your head trying to figure out something new, the more cars you can run through your shop and the better you can fix them.

Let's put this into 2 distinct categories. One is to understand when it's not in your own best interest to take on a job. Your "spidey sense" should be tingling because the job stands to eat your lunch. It's just better to sometimes pass, no matter how good the customer is or how bad they need it fixed. Somewhere out there is a shop that can do that job and do it well. This is where relationships with other shops can be highly beneficial. There are several other shops in our town that we "trade work with" and it works to the mutual benefit of all.

The other category is much broader. Consider narrowing your shop's focus to certain makes or certain systems. A shop near me has specialized in accessories and air conditioning for a long time. He buys AC compressors by the pallet and has a very profitable business because he can do things that other shops simply can't do nearly as well or as fast as he can.

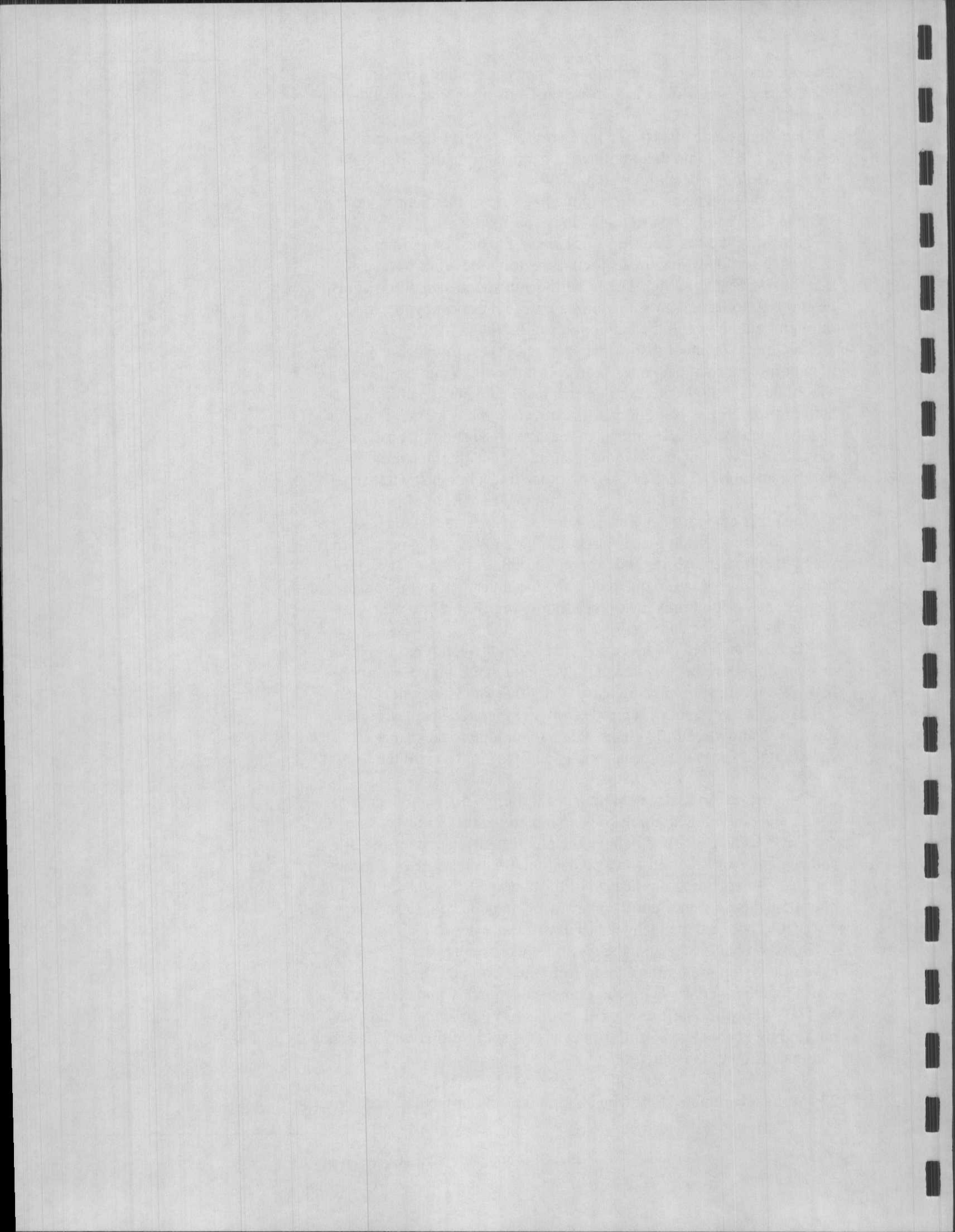
My own shop only works on Honda/Acura/Toyota/Lexus and we do everything on them. We won't even take in a Chevy for a tire repair. We fix most things with ease (that other shops may never get fixed) and we get a lot of referrals from exasperated shops around town. We know the little glitches that are unique to these makes. The shop that only sees them occasionally can't afford to learn them.

21. The office can really hold up techs if there's not enough staff to handle the daily duties. In the dealership arena, the "industry standard" is 5 techs per SA. I believe the greatest efficiency, profitability and customer satisfaction comes when one SA takes care of 2 techs, maybe 2.5, depending on the size of the average RO. A shop that only does transmissions or engine replacements may be able to survive with fewer SAs because the tech takes a day or more per RO.

Our shop has 2 SAs and 4 techs and it works out great. The SAs have time to get great information from the customer, time to put estimates together and make up-sell phone calls quickly and efficiently.

Too little office staff either kills productivity or leads to the techs not finding needed work, since it never gets sold. Either way, the shop and the customer is losing out.

22. Write a complete story when taking the appointment. In today's



society, we're out of time. Customers will call you when *they* have time and that's when you should get as much good information as you can. Nobody can consistently fix a car when the customer complaint is "the car makes a noise". They all make noise when they're running. This is why you should have the customer questionnaires cited in #4.

The greatest value of a questionnaire is, if the customer doesn't know the answers to any of the questions when calling for the appointment, it's obvious well ahead of time. With a questionnaire, they can get you the information you need to fix the car well before it shows up at your shop (like talk to the wife, it's her car).

You also need to know if the customer needs a ride to work, is going to wait or if they "need anything else done" while the car is in your shop.

This is also the time when the recommendations you've listed on previous ROs should be discussed with the customer. They have time now, whereas they didn't the last time the car was in and Little Johnny was late to soccer practice. It's amazing how many customers aren't even aware of the recommendations you made the last time their car was in.

The more time you spend taking the appointment and getting needed information, the smoother everything will flow when the car arrives.

23. Sell Lists and Inspections. In many cases, you're giving time away that customers would gladly pay good money for. A long time ago, I noticed that many customers would drop their car off in the Summertime and ask me to "check it over good, I'm going on vacation". I did, found some things, sold them and everyone was happy.

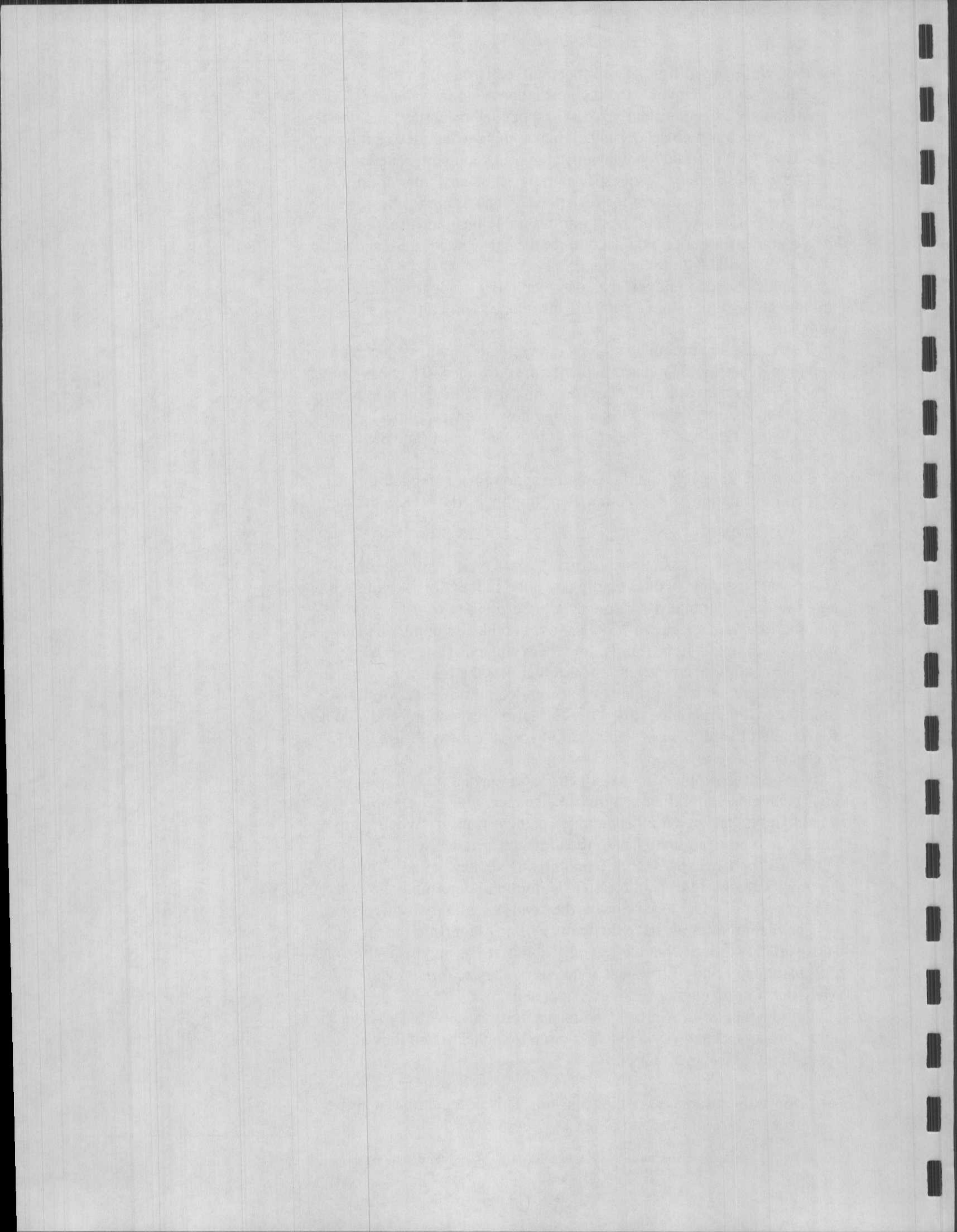
After hearing that request quite a few times, the light finally came on. I put together a list of things that were common causes of Summertime travel problems, called it a "Vacation Inspection" and sold it for \$29.95. I **sold** more of them than I ever gave away for free and everyone was *really* happy.

The point is simple. If you pay attention to what people want to buy, you can sell it to them. You can also take what people *don't* want to buy, package it nicely and *make* them want it. When a car comes in to our shop with an overheating concern, we sell them an "Overheating Checklist" for \$50 and no one yet has batted an eye at buying it. It simply lists all the steps required to determine the cause of overheating, on a piece of paper they can see with their own eyes.

The main reason we have difficulty selling diagnostic time is because no one knows what we're really doing. Lists and inspections let the customer see all of the steps it takes and they realize its value. They don't mind paying for that. Paper sells!

Put together your own lists and inspections and involve your techs in the process. That way, the lists belong to the techs and they're more likely to use them properly.

24. Don't touch cars before the techs do. This is sometimes a prob-



lem for the tech-turned-SA or just the inquisitive SA. Many tow-ins that won't start may be started by a curious SA. I had one SA who added coolant to a hot car that came in with none in it. As a result, the tech who finally did work on the car didn't know it arrived with no coolant. The evidence was gone. Please don't mess with the evidence, you may destroy the key to the puzzle.

SAs should talk to customers and write ROs, techs should fix cars.

25. Do everything you can to eliminate verbal communication. Murphy's Law was never more effective as it is at a repair shop when communication needs to happen but doesn't. The SA is on the phone or with a customer when the tech needs to talk to them about an RO and communication doesn't happen.

We do a lot of fast service jobs for waiting customers. Letting the tech know the customer was waiting sometimes didn't happen. Naturally, a waiting customer's car should be handled differently than an end-of-day customer's car.

We finally had a cool stamp made that says and it gets stamped on the top of every waiting customer's RO. It's simple, easy and solves a serious problem.

WAIT

Another cool system is for the SA to highlight in yellow every sold recommendation the tech has written on the shop copy of the RO. Anyone can pick up that RO and tell at a glance what was sold and what wasn't. It's fast, easy and effective.

Look for other things you can do to reduce or eliminate the need for verbal communication.

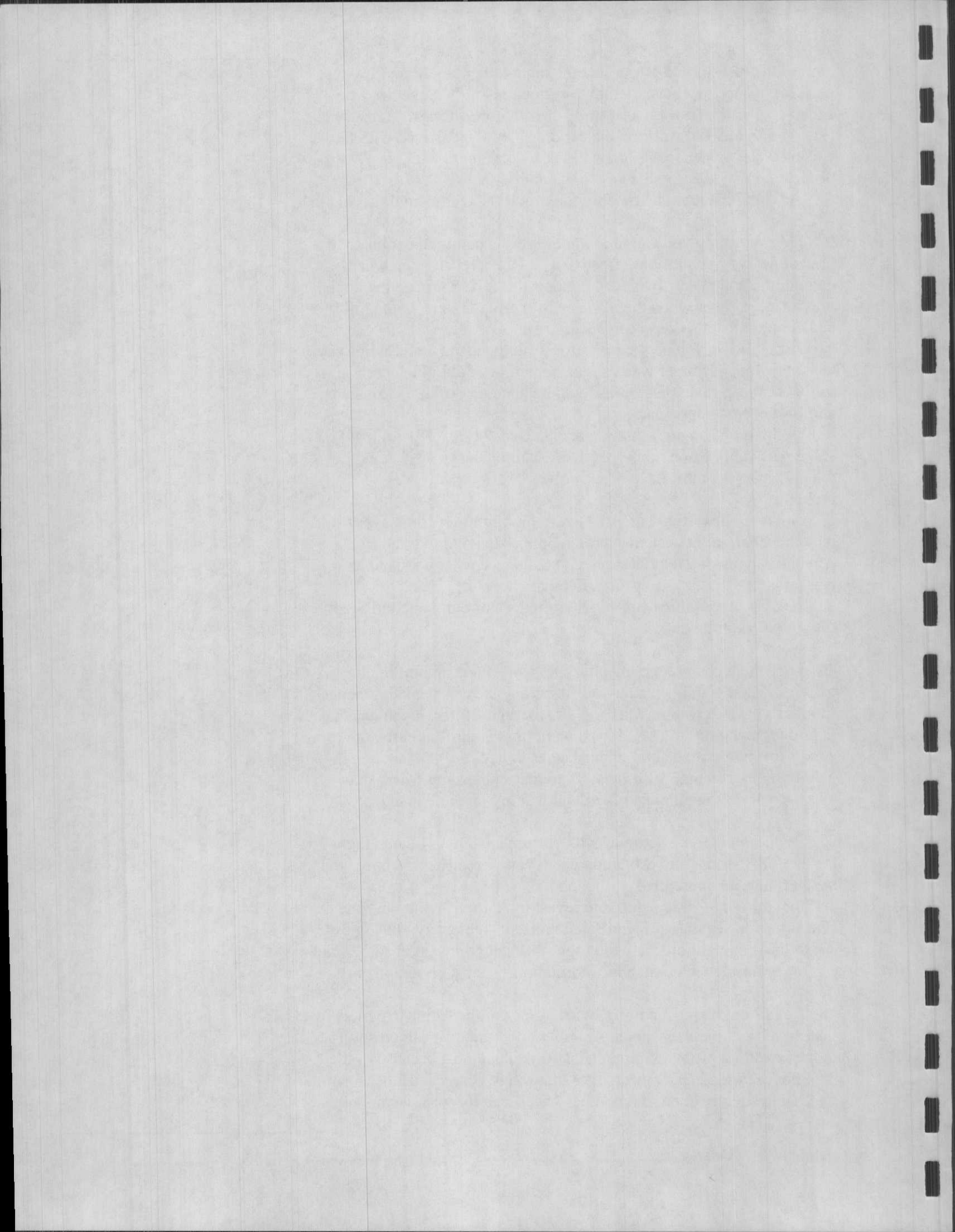
26. Give the techs needed inventory, like oil filters and drain plug gaskets. There's only so many oil filters anyone can steal and the tech shouldn't have to wait or walk to Parts for an oil filter. Each tech has their own inventory to use. If you want tight control of parts, the counts can be verified and replenished each day.

All our assortments of little stuff are out in the shop where our techs can access them quickly without waiting on the Parts Dept.

27. Be fair on diagnostic times with customers. Don't charge them for the full "fishing" investigation when you're really scratching your head or have an apprentice on the job.

Sometimes the shop just has to invest in "tuition" on a job. The next time you see that job, you'll recognize it right away. In some cases, these expeditions may highlight the need to invest in additional resources for the techs, such as information systems or equipment.

28. Be fair on diagnostic times by charging for the tech's expertise instead of the time they spend. A really good top tech can go straight to the heart of a problem in much less time than most because of their experience (see #27). Don't reduce diagnostic charges just because your tech is really good. Sometimes we charge for what we do, other



times we charge for what we know. These are the times that make up for #27 above. Hopefully, you have a lot of them.

29. Use online parts ordering to reduce incorrect parts deliveries. If you seem to have problems getting the “wrong part” too often, you should consider looking up your own part numbers. The real cost of the wrong part usually isn’t discovered until the tech needs to install it, then it’s very costly.

World-Pac has a terrific catalogue system that makes it a no-brainer to get the right part number.

Job kits from the past will also be very helpful in this regard. Sometimes, in order to go faster, we must go slower.

Solve the “wrong part” expense and disruption.

30. Inform the customer in advance about potential problems inherent in certain jobs before you even start. No one in their right mind should sell an exhaust manifold gasket replacement without mentioning the risk of broken studs or frozen bolts. Too many shops needlessly give away the time spent extracting broken bolts because they don’t want the anticipated argument with the customer.

Before you start, tell the customer what might happen, all the way down to removing the cylinder head and taking it to a machine shop. It’s a distinct possibility.

This gives you a chance to convert unsold time into revenue. It also enhances your image as a professional who really knows your business when you can inform your customers about these things. “Well, you said it could happen” is what you’re most likely to hear if there is a problem.

On the other hand, if there are no broken bolts, you’re now a hero for coming in under what the customer might have expected.

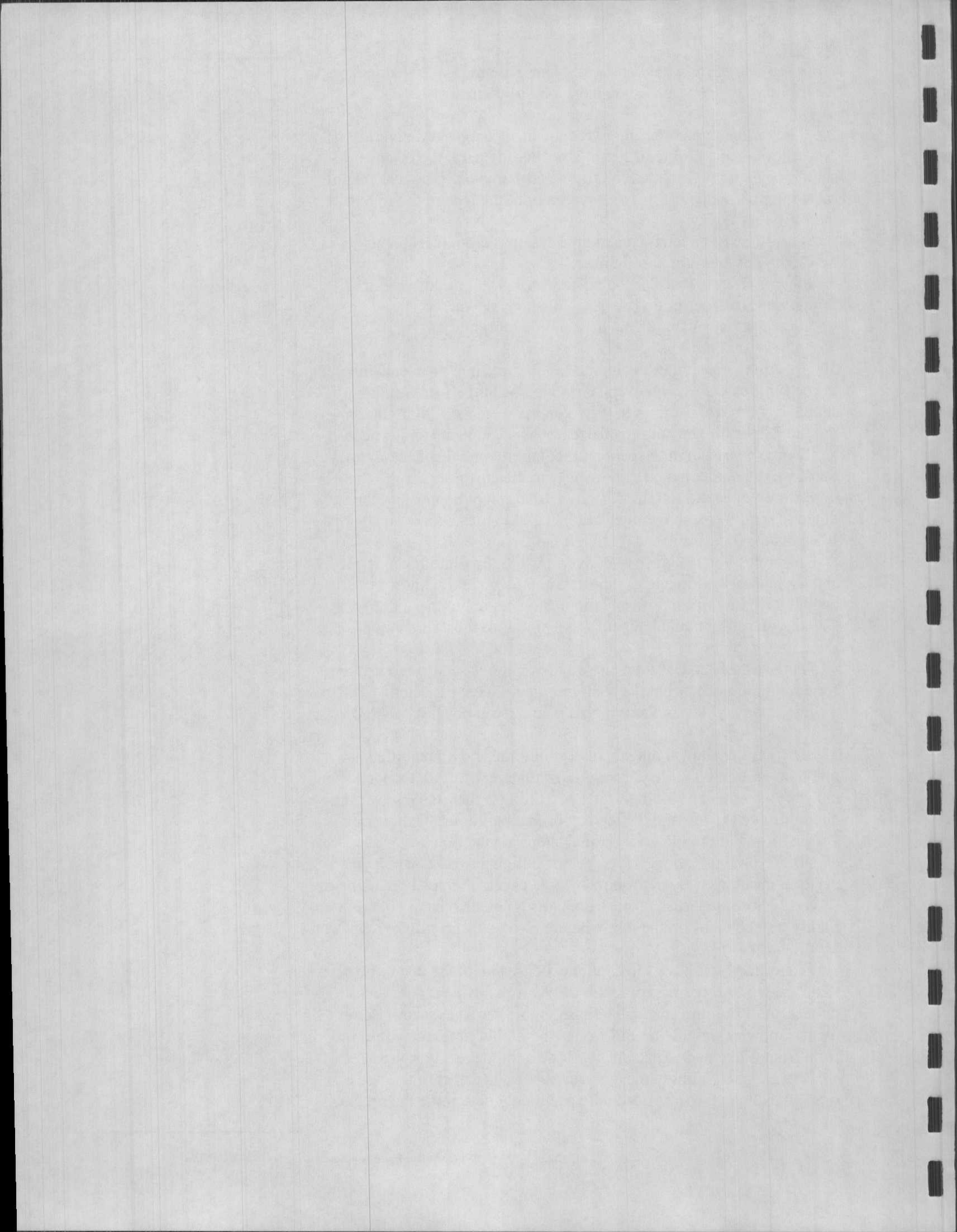
Either way, you stand to win in a manner you never have before.

31. Difficult, technical diagnostic testing time should be billed at a rate that’s around double your normal shop rate or, if that’s not acceptable to you, you can call it “2 for 1”. Billing 2 for 1 means you sell an hour to do the job and the tech stops at a half hour. Either way, you’re billing at double your normal shop rate per hour.

When you think about it, you’re not selling any parts when you perform the steps needed to see why the “check engine” light came on, so you’ve lost the Gross Profit from parts. You also have your most highly trained techs on the job, who are also your most highly paid (or should be).

In addition, you have substantial expenses involved just to be able to do the work in the first place. You’ve probably sent your techs to quite a bit of training and spent considerable sums on special equipment. So, why should you bill for testing at the same rate you’d bill for a front brake pad replacement? It doesn’t make any sense.

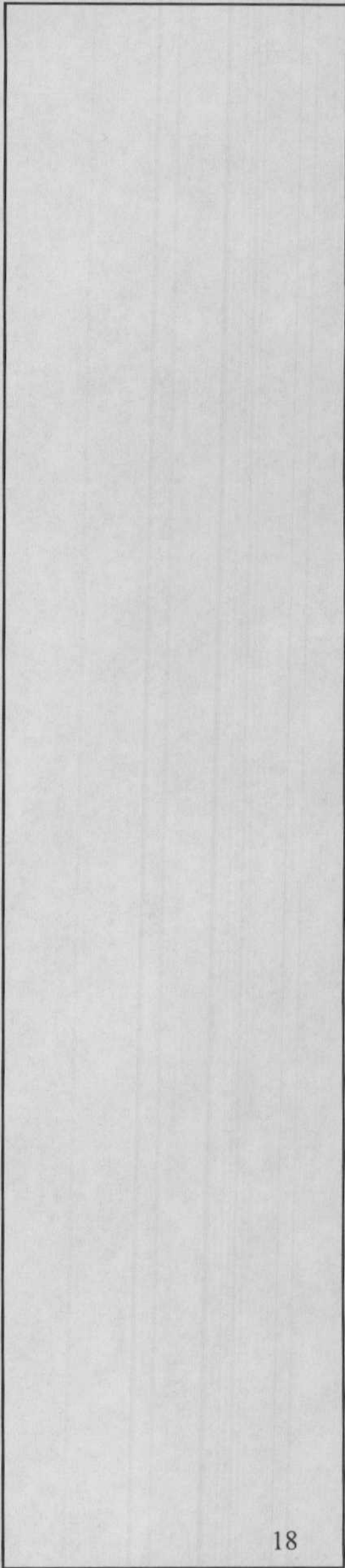
Charging accordingly means your best techs can earn the best money and take the time needed to accurately determine the precise

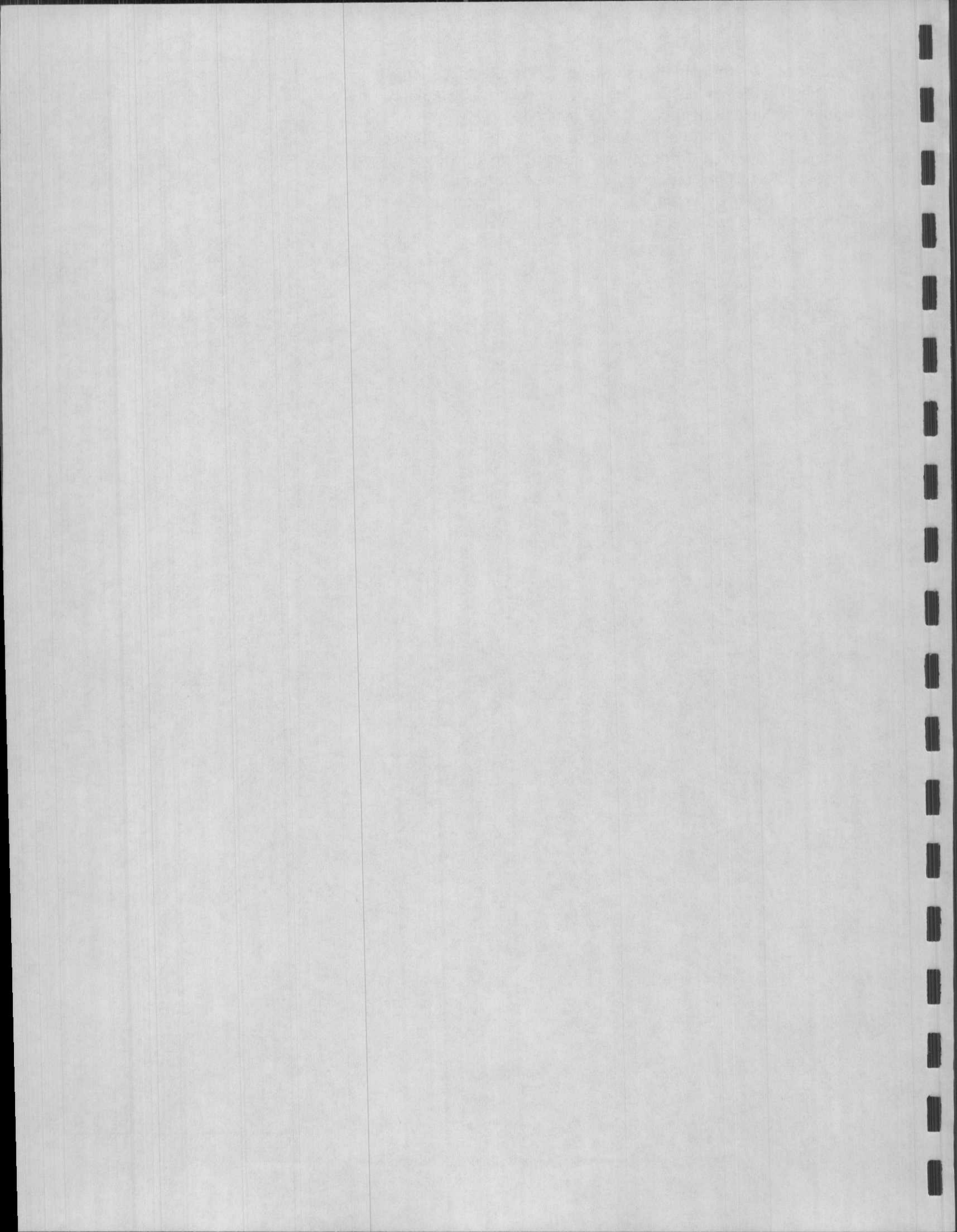


cause of the symptom then show you test results that eliminate any doubt that the part has failed testing and needs to be replaced. It's a lot better than using the S.W.A.G. method.

If the customer only has to buy the parts the car really needs, they'll find it well worth paying for the testing time to identify those exact parts. This represents the best value for them.

This also gives you a fair return on your investment so you can buy more training and tooling the next time it's needed.





What Techs Can Do to Make the Shop Efficient

1. On every car, always do the diagnostic or inspection part of the job first then fill out the repair order with any additional needed sales and turn it in. You can do the rest of the routine job while the office puts together an estimate and calls the customer.

2. When listing anything that needs to be sold, slow down and write a complete description of what the car needs and **why**.

Your job is to give the service advisor (SA) a complete sales presentation. In order to go faster, you must first go slower. If the SA has to get up and come ask you anything, you've just created a bottleneck that will slow everything down. If anything **can** be measured, it **should** be measured. The measurements should include the factory service limits. Example: Don't say, "Needs front pads". State: Front pads 2mm. New is 10 and the limit is 2mm. Front pads at wear limit.

3. Needed repairs should always be prioritized. "What the customer wants fixed" should be listed first, then safety items, then items that will cost less to fix now than later, then items that can be fixed anytime and, finally, needed maintenance.

The reason the customer's concern is first is because that's the real reason that car is in your shop and that's the one thing the customer cares about. Until that issue is addressed, nothing else really matters.

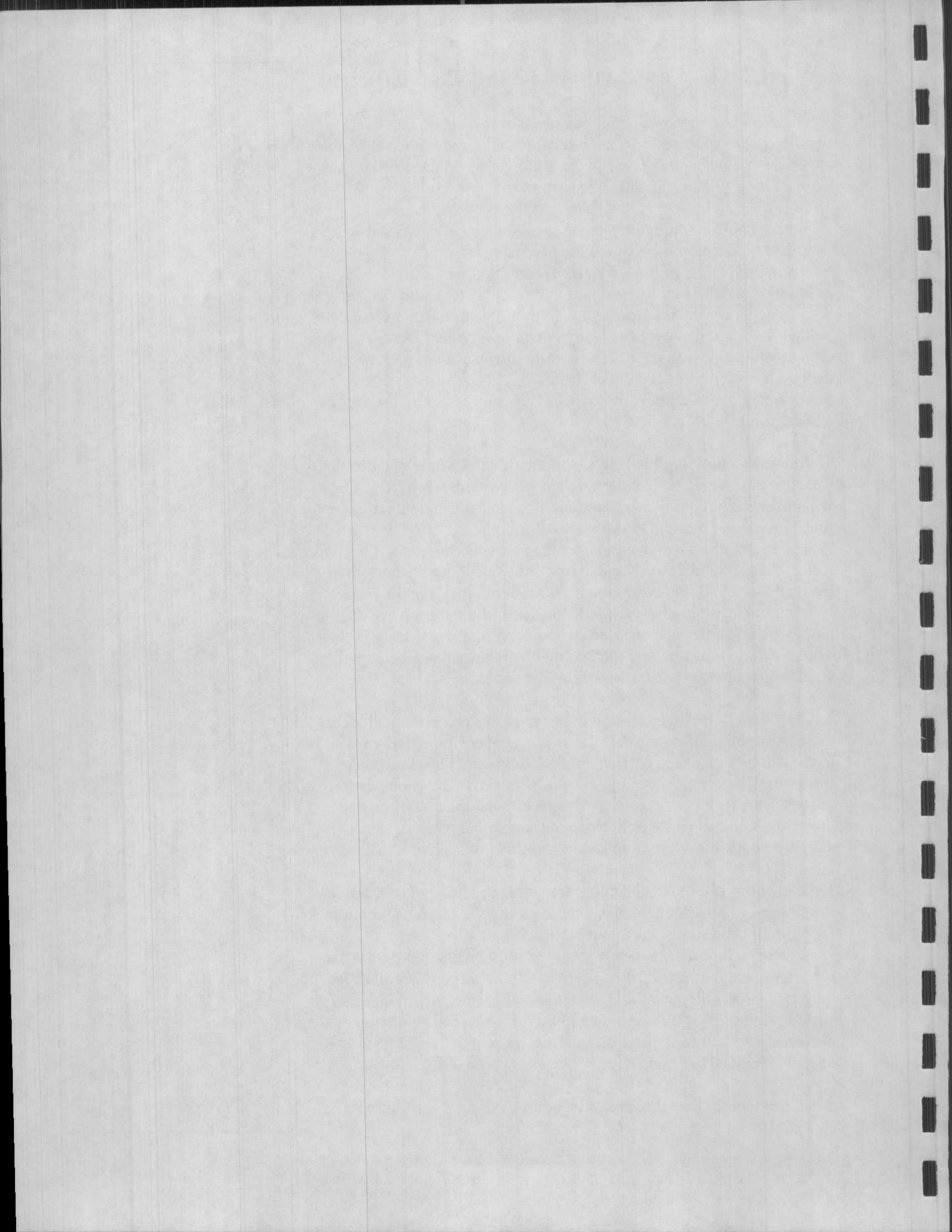
Your expertise in prioritizing the urgency of repairs is very important to the sales process, because customers frequently ask about that. The more info you can give the SA, the faster the sales process will go and the sooner you'll be back working on bigger jobs.

4. Arrive for work early enough to be ready to start turning wrenches as soon as your shift time starts. If you're supposed to start at 7:30, have your box unlocked, coffee drunk and BS shot ahead of time. *Never* slack off in the morning, even if it's a slow day. You never know what you'll find, who will say yes or what the tow truck will drop off. You can waste time when the shop's out of work later in the day. Remember, each minute is now worth \$2.08. Treat it that way.

5. Study how you move and count steps that can be saved. Arrange the equipment to reduce or eliminate steps and wasted time. 5 minutes spent finding a tool just cost your company \$10.40.

When any tool breaks, needs repair or additional supplies to make it work, report it immediately. There's nothing more wasteful or frustrating than finding the bit is dull on the brake lathe and no one reported using the last bit when they put it in. Now, time and money is needlessly wasted while new bits are located and delivered (if they can even be obtained the same day).

6. Use timers for straight time operations. If .5 has been sold to deter-



mine why the dome light won't come on, use the timer to tell you when to stop. Otherwise, you run the risk of really getting into the job, losing track of time and spending way more on it than was sold.

This will help keep the delicate balance between fixing the car at all costs and fixing it to make a profit. There's nothing evil about profit and nothing wrong with tracking time. That's why they have meters on the gas pumps to keep track of what goes out, so they can charge for it.

When you do any diagnostic operations, write down each step that you took. Also write down any tests and their results. This logical step-by-step process lets the SA write a nice, informative RO to demonstrate the value you provided to the customer for the time they've purchased. It also should give credence to your recommendations in the event the sold time needs to be increased. When the car is outside broken, no one has a clue what it will take to fix it. It's your job to use the sold time to either fix the car or determine the next logical step in the repair sequence so the SA can readily explain it to the customer and sell the next series of tests or inspections.

7. Please don't march in to the office demanding to know what they expect you to do in only .2 on a labor line. What they expect you to do is give them an idea as to how big a job it is to fix or to actually fix it. That .2 should be plenty of time to adjust a glove box that doesn't close right. If the glove box has to come out and the dash has to be replaced, just write it up.

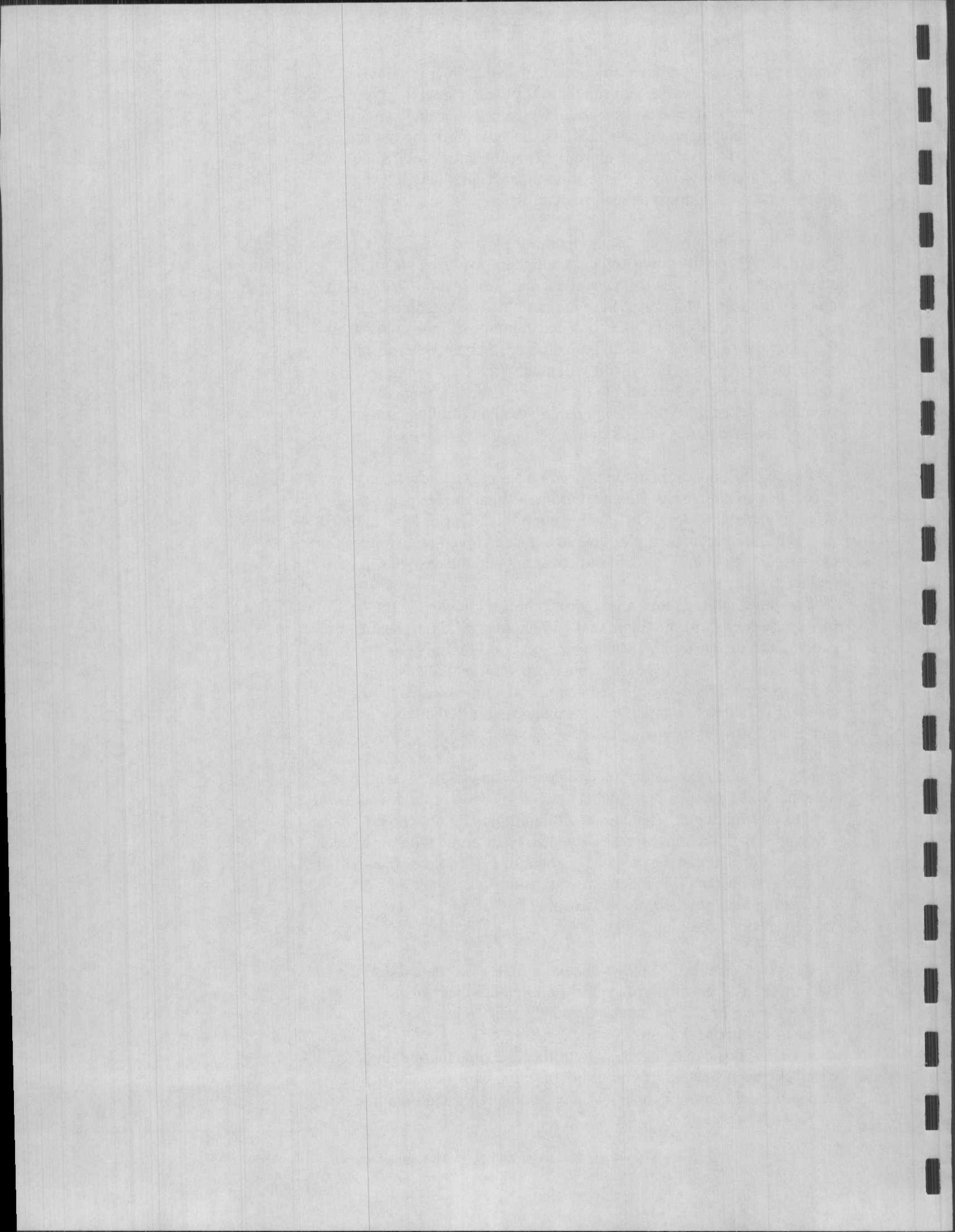
You have a tremendous amount of technical knowledge the front office just doesn't have. Share that with them at all times, so they can explain it to the customer. Most operations sold for only .2 are just to give the customer an idea of how big a project it really is.

It can be surprising just how much information a skilled tech can discover in only a few minutes. Use it and report it, then the customer can decide how far they want to go.

8. Don't argue to excess on small diagnostic times. Just spend the time that was sold then report what you've found so far and where you need to go from there. That alone will highlight that not enough time was sold if that's really the case. I've had techs argue with me to such excess in the past that they argued past the time I'd sold. I then had to tell them that if they'd just gone to work right away, they'd be done by now, rather than get their blood pressure elevated for free and *still* have to spend time on the job.

9. Use your resources. Always check for TSBs (Technical Service Bulletins). It's amazing what you'll find in there that can either help you fix the car or sell the work. If you have the right setup, it shouldn't take long to check it out.

Actually, this can be one way to utilize idle time that might otherwise have been wasted. If you're out of work, check for TSBs on cars you still have coming in later. You can convert wasted time into pro-



ductive time.

TSBs are the manufacturer's equivalent of the "Silver Bullet" fix. It's generally easy and, sometimes, you'd never have guessed the fix in a million years. Don't beat your head against the wall, use your resources.

10. Be delighted to take a road test when necessary. In fact, if you're not occupied when the car is due in, it never hurts to wait nearby to take the ride. This is going to save you more time and trouble than almost anything else you can do.

Here's a few rules for a successful road test. Always start out driving the car yourself. The customer may take you as a "hostage" and drive you all over town if you're the passenger. If you can't make the car do what it does, you can park and ask the customer to drive you back to the shop. Now that they have a destination, they'll probably do fine.

Refuse to answer any pricing questions. You can just tell them you don't know about money, but you know all about cars. Tell them the SAs can answer any questions they have about pricing. If you don't get involved in pricing, you won't get into trouble (most of the time).

Refuse to talk about "hours" or any time considerations, since many customers will try to twist that into a price. Tell them it takes "until it's fixed".

Never tell a customer you "know" what it is. That undermines the "billing money for testing" concept. It's OK to tell them you have some good ideas on where to go, but never identify the exact part. Tell them you're only allowed to hear the noise.

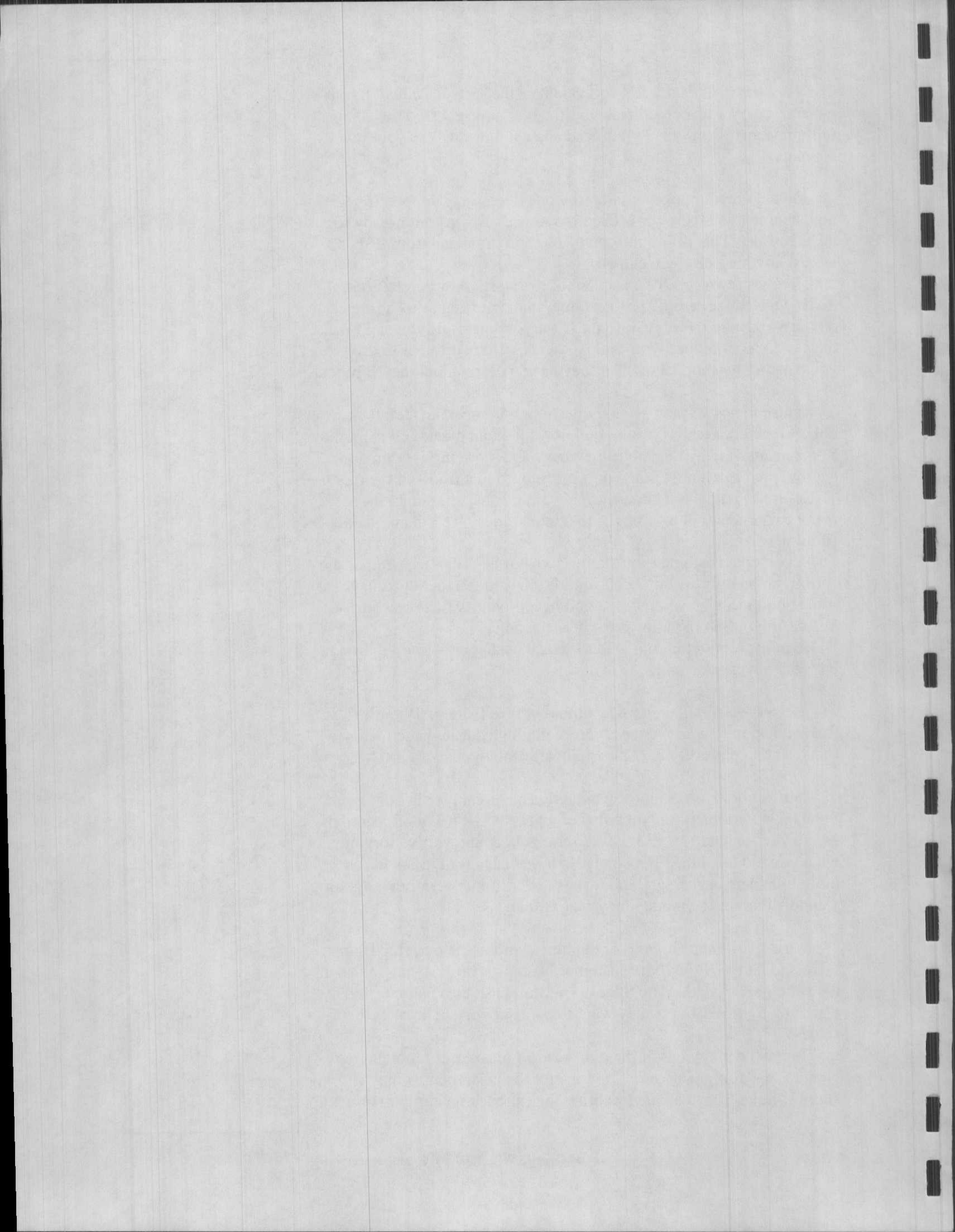
Be polite, courteous and glad to see all customers. They're bringing your paycheck.

11. Be very fair with diagnostic time if you're fishing. If you're really not sure how to proceed, you're getting educated and may need to pay some tuition for it. This is all part of the job.

12. Write a book on diagnostic operations. A real nice list of all the things you inspected can not only be impressive, it's a good record of where you've been, in case the car returns later and you've forgotten what you did last time. It also makes it real easy for the SA to sell more time when necessary and makes the customer feel they're getting a good value for the money they're spending.

13. If the spark plug (or bolt, or lug nut) won't come out, stop right there and let the SA call the customer. If it isn't broken yet, you're in a position of strength. The SA can truthfully ask the customer if they want you to break it or if they want to come down and break it themselves.

This will get you out of the old "I didn't break it, I'm not paying" game. This also preserves all options for the customer. If they're short of funds, they can always bring the car back next month or next



week when funds become available. It also greatly enhances your image of professionalism.

14. Perform thorough inspections and lists. If a list of operations has been sold, it's your obligation to completely fill out the sheet or talk to the SA in case they didn't sell the right operation.

In many cases involving diagnostics, I don't have operation sheets for my techs. I like to let *them* determine the best course of action. A diagnostic driveability sheet that directs them to test fuel pressure on a car that has a serious vacuum leak could be a waste of time and money, for example.

If you want the time, it's only fair that you should do the work.

15. Work smart and in sequence. If you're doing an alignment because a car pulls to one side, it only make sense to road test it first, so you have a base line to judge the effectiveness of repairs.

The same can be said if you're replacing or rotating tires without doing an alignment. If the car drove straight before you got it and now it doesn't, you need to know that. Most road tests can be done in a block or two and don't need to take a lot of time.

A car with a suspect thermostat can be diagnosed in minutes on a cold start. Let it run a few minutes and see if the radiator gets warm. If the radiator gets warm, the thermostat isn't closing. Case closed, there's no need to spend the time to see when it opens.

16. Tell the office what to sell and why. Don't guess. Remember, it's your job to give the SA a complete sales presentation and your job to direct the efforts toward a logical conclusion—the fixed car.

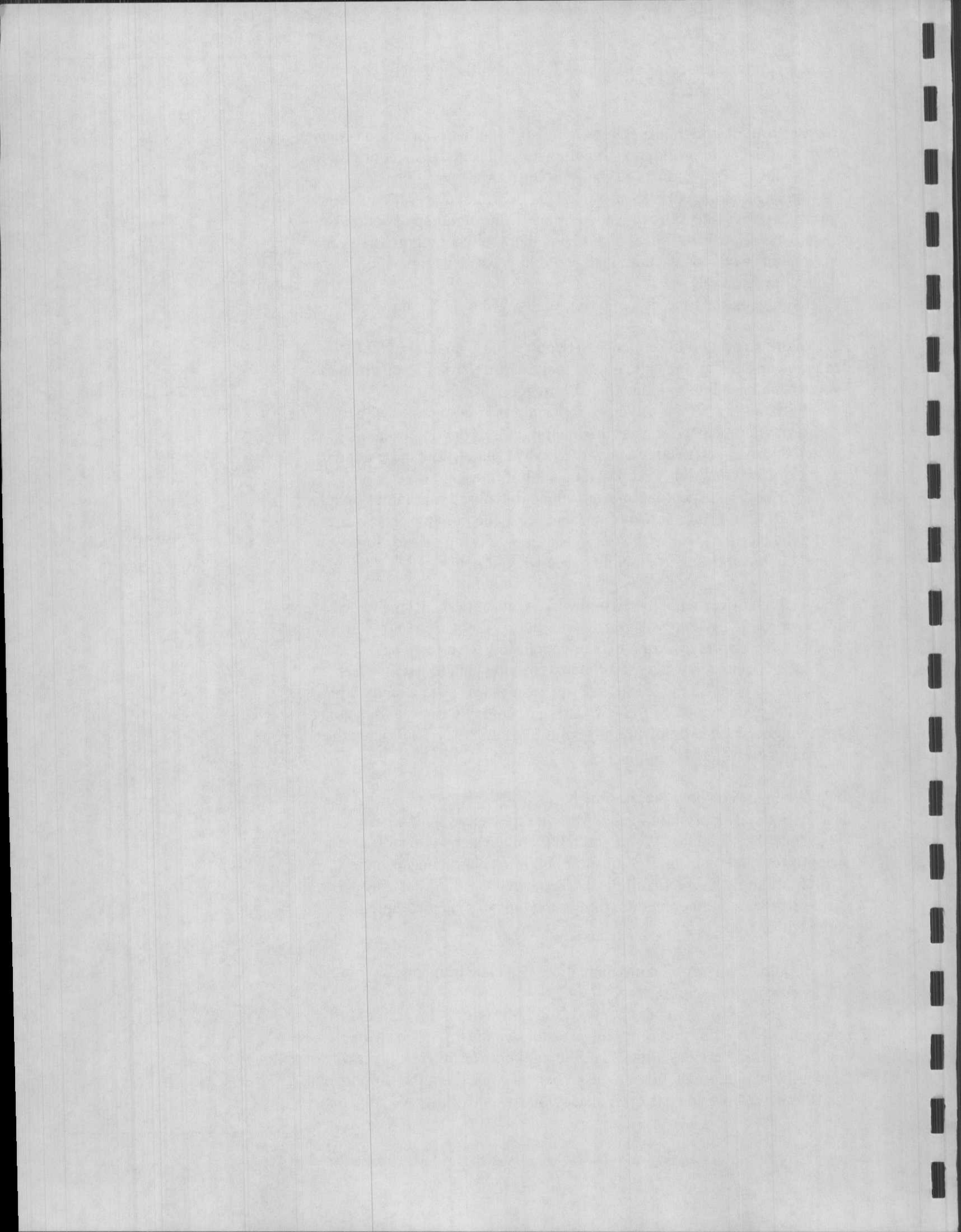
Much SA time is wasted walking over to the tech to get a verbal explanation because the repair order just isn't clear as to exactly what will fix a given symptom. This wasted SA time will bite you the next time you need the prompt attention of the SA and they don't have the time right then.

17. When asked "how long to finish this job?", give a time, not a list. The office staff is trying to gauge whether they can sell another job or rearrange the schedule. When you tell them the steps you still have to take to complete the car, it's meaningless information because they still don't know how long all those steps take. Get familiar with the times it takes you to do certain things so you can give a completion time when needed.

18. Eliminate all verbal communication. Be clear and concise in what you write on the repair order.

We have a saying in our shop—"If it isn't written down, it didn't happen". Sometimes, in order to go faster, we must first go slower.

Poor writing creates a lot of additional work for others and slows down the whole production process. Just as you expect the support staff to make your job easier, it's also your responsibility to make their



job easier. It's not that hard to do once you get used to it.

19. List known hazards of the job on your recommendations. You're the one with the technical expertise and you're expected to keep the shop out of the soup if things go awry on a job. If the possibility exists, you should mention it.

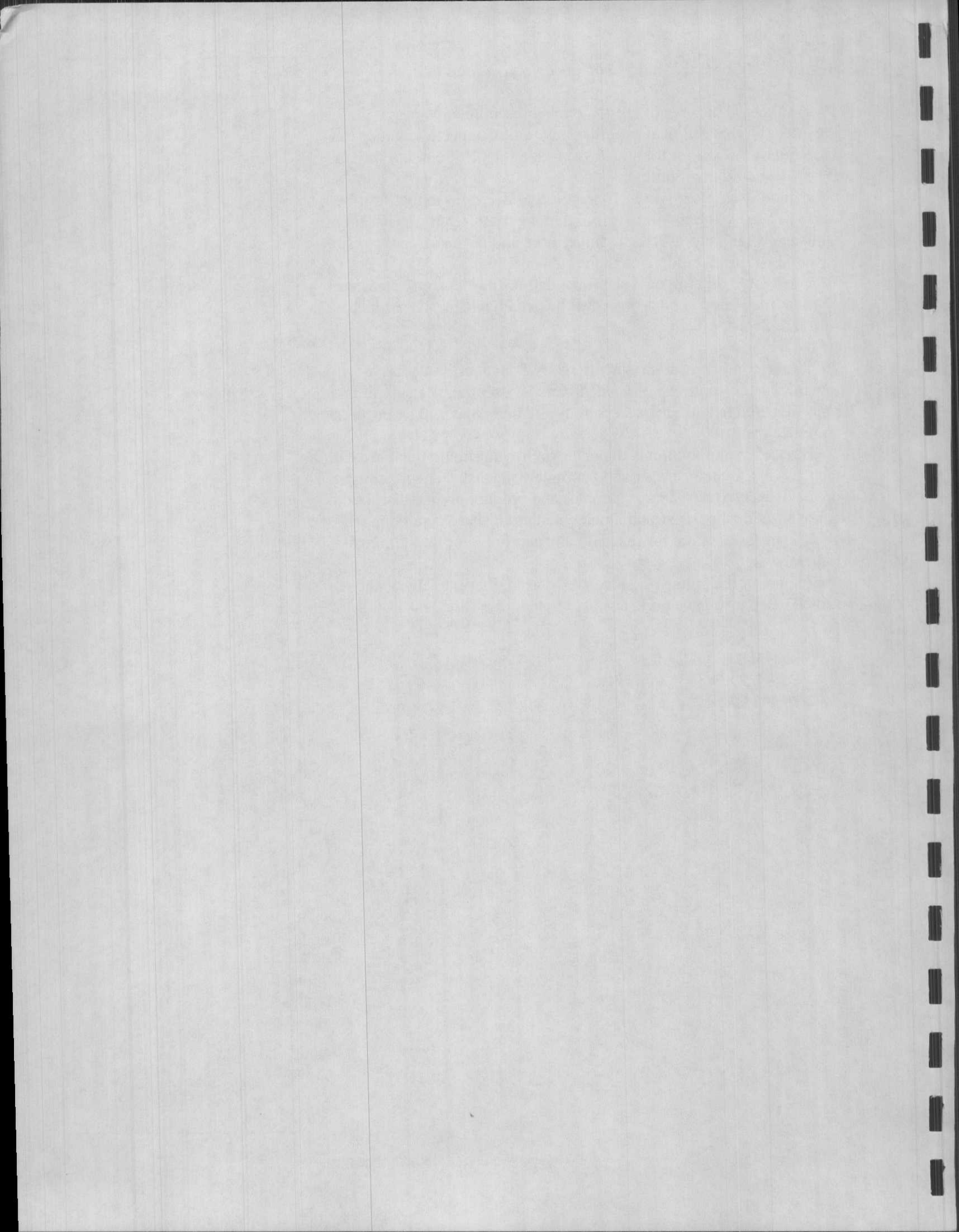
A good example might be a brake pedal that goes to the floor because of a broken brake line. An old brake master cylinder has an established wear pattern in the cylinder bore and if you force the piston past that point, it could damage the rubber cups.

You should add to your recommendations that the brake master cylinder may need to be replaced if the pedal isn't firm after the brake line is replaced.

20. Make complete parts requisitions. When an estimate has to be put together, an accurate list of needed parts is essential. Be sure to take your time and list all the gaskets, nuts and bolts that will be needed to complete the job.

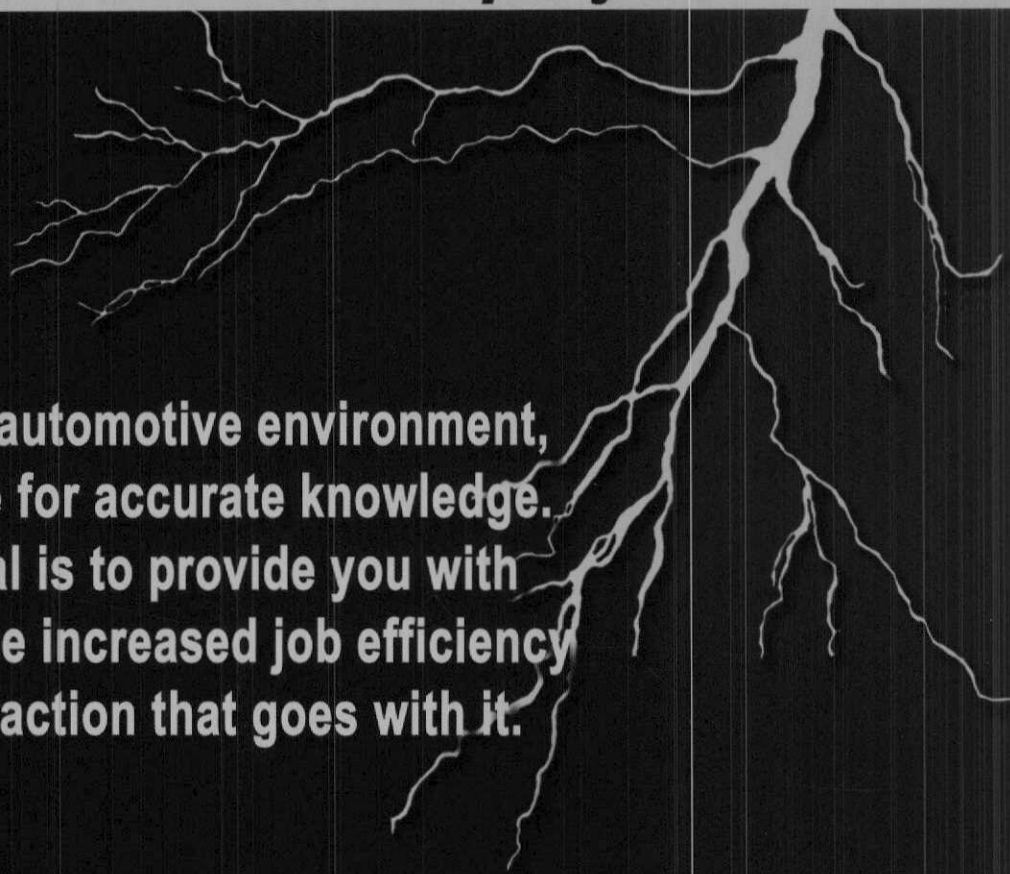
The tech doing the job is the one expert who should be able to identify all the parts necessary to complete the task. The inability to do this causes over-runs on estimates and production line disruptions while additional parts are obtained. Neither of these situations are good; not for you, not for the shop and certainly not for your customer.

If some of the parts you listed aren't used, they can always be returned. Better to have parts left over than to run short.



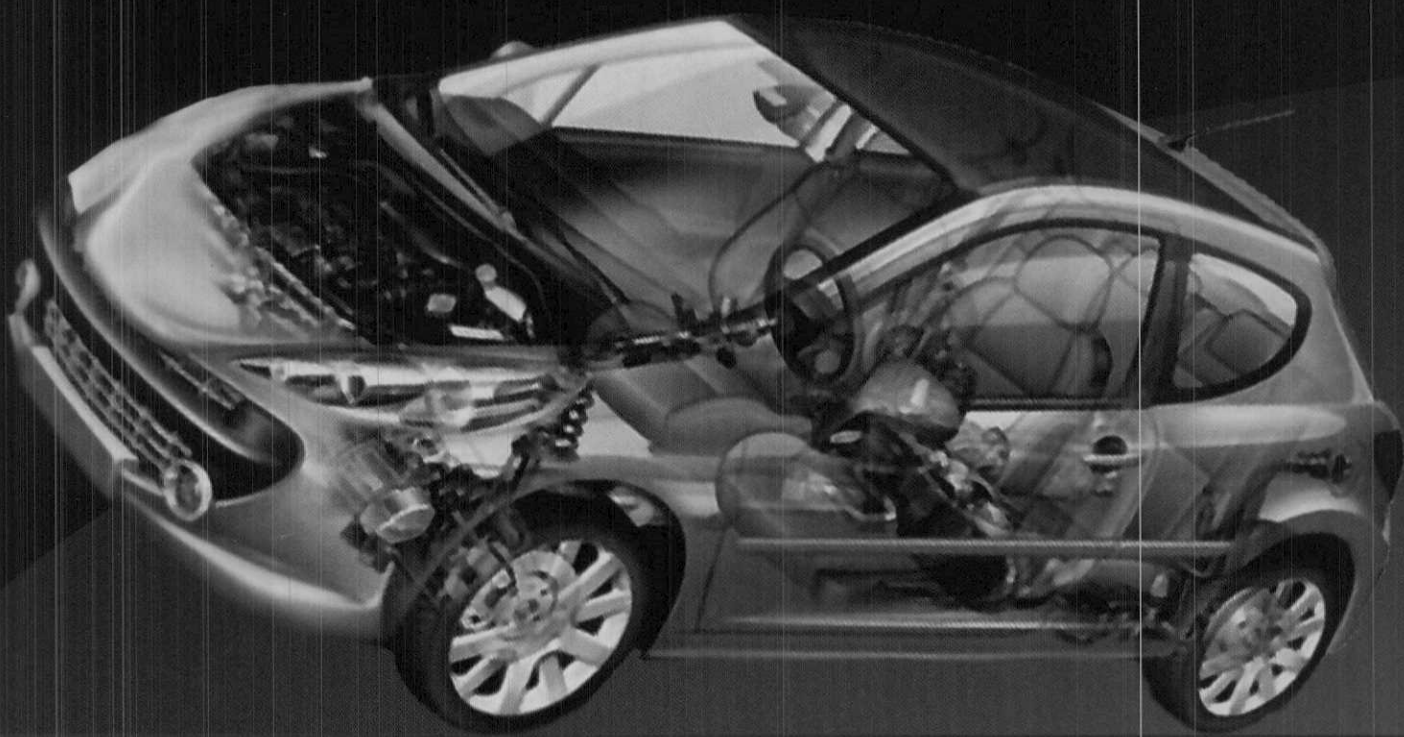


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