simple service. Also like the swing out batteries. I own Deere and Oliver and they are very hard to work on, especially their hydraulic pumps."

Lynwood Johnson, Scott City, Kan.: "When a bearing on a disk wears out, the bearing needing to be replaced is on the opposite end from the nut end. This calls for disassembling the whole unit. To simplify this time consuming job, I suggest using locking nuts on both ends of the shaft."

Fritz Anding, Hudson, Wis.: "I purchased a new IH combine model 715 in 1973. The first day I used it, the oil pump malfunctioned and the engine blew up. I waited for over a month for a new short block. I think items like these should be kept in stock so that the part or parts can be shipped to dealers within a couple of days."

Robert Heyen, Petersburg, Ill.: "I'd like to see something similar to Dickey-john's area monitor, and an accurate speedometer mounted on the front wheel, as an option on all makes of new tractors.

Pierre Glanzer, Huron, S. Dak .: "The present warranty setup is unfair to smaller farmers. If I don't put on many hours - say only 150 to 300 a year - my tractor has not had a chance to prove itself. The bigoperator gets that many on in probably two months. I have to pay just as much for my tractor but get cut short on the warranty. For example, owned my tractor two years before I needed to use the pto on a silage cutter. When I used it, I discovered that the lever won't shut off the pto. Therefore, I have to stop the engine to grease and service, and pull the power shaft to travel on the way to the field, etc. The warranty didn't do any good because my tractor was then two years old."

Glanzer also feels that tractor cabs should be made "so one could take at least one rider with him safely and comfortably. Also, most all machines could be fixed handier to grease so you don't have to crawl underneath and fight through a grease job."

Fred Steckler, Mt. Carmel, Ill.: "We were used to a front pto drive, but now you can't get a big tractor with a front pto."

Our survey asked farmers for suggestions on what manufacturers and their design engineers could do to make specific machines easier to operate and service, more dependable, etc. Here are their "messages" for individual manufacturers:

Deere and Co.: "Your disks need a heavier lift pipe between the four wheels. We have two of these disks and both had to have another pipe put inside the factory pipe where the lift cylinder hooks to the pipe to raise the disk out of the ground. Both work good since being reinforced."

— Pierre Glanzer, Huron, S. Dak.

Massey Ferguson: "The plastic bushing used in the belly mower mounted on the 135 tractor is very difficult to replace. We sawed through this part of the yoke and fixed it by welding two nuts on so it would bolt together like a rod cap. This made it very easy to replace the

plastic bushing without tearing the mower apart. Also, the belt replacement method needs improving." — I loyd Cantrell, Vida, Mo.

Portable Elevator: "We have purchased a Glencoe Soil Saver (21 ft.) and you can't set it up the way the directions say. It won't fold and the blades don't line up." — Fred Steckler, Mt. Carmel, Ill.

Year-A-Round: "Purchased a Year-A-Round floating cutter bar in '75. Had to completely rebuild the drive on it even after the factory sent modifications." — Robert Williams, Alger, Ohio.

International Harvester: "I have a 181 IH combine which is about two or three models obsolete now. But it really aggravates me when I want a sample of grain from the grain tank. I have to stop the machine, climb out of the cab, do a balance act on the unloading auger, climb over the sides and down into the tank and then reverse the procedure to get back. Also,

"Takes a contortionist to grease the elevator."

I can't get a tailing sample any easier. It also takes a contortionist to grease the upper elevator bearings. Otherwise, it's a pretty good combine."

- Edward Sanders, Potter, Neb.

White Farm Equipment: "Brackets for the packer wheels on the 54 Plant Aire are so light they bend and twist when you have insecticide boxes on." — Ralph Strong, Union City, Mich.

International Harvester: "Brackets used for lifting the wings on the 45 vibrashank (27 ft.) I bought weren't heavy enough. Straps would snap at the bolt holes and I had to weld on diagonal braces. The cable system for raising and lowering the wings is very poor — pulley can't take the stress and the cable jumps out of the guides. Suggest that you eliminate hydraulic driven cables and use hydraulic cylinders mounted directly to the frame and wings — as is done on other brand field cultivators."

Allis Chalmers: "On my AC field cultivator, I had to weld guards on the valve stems to prevent flats in the field." — Rolland Amundson, Newfolden, Minn.

Edwards Rod Weeder: "The drive boots leave too deep and wide a furrow. Also, when transporting on the road, I hit a bump and the control arm to the wheel jumped over center and ruined a \$40 tire. I bolted a tie chain on to prevent this." — Edward Sanders, Potter, Neb.

Kewanee: "I have a 1975 model 1000 disk (18 ft.) which I like very much but the scrapers at the bearing standards won't work in damp, trashy conditions. We just run without any at the bearing standards." — Robert Heyen, Petersburg, III.

Deere and Co.: "Vibration on my 4230 tractor, with cab, is terrible, especially when traveling in road gear. I would really like an answer to this. The dealer says they have this

"Vibrations on my tractor are terrible."

problem and no answer as how to stop it." — Pierre Glanzer, Huron, S. Dak.

Specialized Products: Stirall auger system was engineered good and has given good service. But the directions for installing it were terrible. It took more time to figure out the directions than do the work. Even the electrician couldn't follow the wiring diagrams. It just needs a better installation write up." — Larry Seals, Mt. Carmel, Ill.

Massey Ferguson: "The steering arms on both sides of the 135 MF are very weak. They bend very easily if wheels are cut sharp and happen to hit a hole or solid object." — Lloyd Cantrell, Vida, Mo.

International Harvester: "The cab on my 1974 IH 1066 is the worst on the market. Almost impossible to use to cultivate with. Can't see the rear cultivators, or side rows when looking forward, unless you lay down." — Robert Williams, Alger, Ohio.

Melroe: "Very poorly designed scraper system on your drills. They wear out in two to five days." — Kendall Hailbeck, Steele, N. Dak.

Allis Chalmers: "I have a 1974 AC 7030 tractor. Have no complaints on serviceability. It is excellent. Would like to see a better seat option, and better instruments." — Robert Heyen, Petersburg, Ill.

Deere and Co.: "The John Deere 500 round baler uses a relief valve to bleed tail gate back as the bale gets larger. System never worked. I had to override it with a tractor control lever to bale at all. Deere scrapped the idea on their new 510 baler. Dealer says he can't give me much trade in allowance on my lemon. Will trade on new model if dealer will let me try new model first, and take my loss."

— Wayne Wilhelm Triadelphia, W. Va

New Holland: "When baling cornstalks with the 850 round baler, the twine cutter becomes blocked, requiring hand cutting." — Charles Cleek, Kingsport, Tenn.

Hesston: "Bearings and sprocket on 1400 liquid manure spreader come loose from the main shaft about every 4 or 5 loads. Slip clutch needs to be disk type rather than ratchet. I think the idea of the Hesston spreader is great but they need to do some work on the drawing boards before selling it. I traded it off for another brand." — Charles Marshall, Gladstone, Ill.

International Harvester: IH disk should use regular bearings instead of high priced bearings one can find only at the IH dealer." — Jack Williams, Faison, N. C.

Ford: "Hydraulic hoses for power steering on the new 9600 tractors are almost impossible to get at with the cab on. Also need better connections on hydraulic lines under the hood on the 9600 Ford tractors (1976). We bought three new Ford tractors and all had oil leaks from arrival."

— Gary Commer, Woodlake, Neb.

International Harvester: "On my IH 1066, more fluid to the power steering is needed to increase its steering quickness. The orifice that restricts oil flow to the steering needs to be a little bigger to let more oil get to the steering components."

— Larry Seals, Mt. Carmel, Ill.

Deere and Co.: "The wiring harness for the 4430 is too short lived. Our cab always has trouble."

— William Collins, Myrtle, Miss.

Massey Ferguson: "The 135 MF should have a better seat and some sort of backrest, a place for a tool box when the roll bar is added, and a better lubrication point where the front axle fastens to the front of the motor." — Lloyd Cantrell, Vida, Mo.

Ford: "I wish Ford would offer a small "6" in the half ton model pick-ups. Dodge has a 225 "6", Chevey a 250 but Ford only has a 300, which is too big. They had a good "6" in the 240 CID but quit it." — Rolland Amundson, Newfolden, Minn.

Deere and Co.: "The John Deere cab is great except for limited visibility of the drawbar when hooking up to machinery. Also, it would be nice if the back window would open wider." — Charles Cleek, Kingsport, Tenn.

Massey Ferguson: "I would like to see MF come out with a four-wheel drive combine." — Fred Steckler, Mt. Carmel. Ill.

White Farm Equipment: "Our Oliver-White tractor had 50 days down time with the hydraulic system last summer. I was supplied with makeshift kits to correct the problem, each one no better than the one before. I am now trying to get enough parts adapted from one other model to update the tractor, all at my expense." — Wayne Wilhelm Triadelphia, W. Va.

Massey Ferguson: "The plates that the straw spreaders on the 510 combine are bolted to should be twice as heavy so they wouldn't break." — Frank Peter, Mt. Carmel, Ill.

White Farm Equipment: "On the new White tractors, the fuel shutoff valve is too far under the hood to get at easily." — Ray Ruff, Clayton, Wis.

International Harvester: "I purchased two new IH tractors recently. In less than 600 hours use, the Delco Remy alternators needed service. The mechanic says it is the design of the brushes that cause the trouble."

— Fritz Anding, Hudson, Wis.

Allis Chalmers: "Raddle chains on the Gleaner G break too easily. Should use augers like John Deere."— Jack Williams, Faison, N.C.

Field Queen: "Had to reinforce the cab roof of the 1976 Field Queen chopper as the air conditioner was falling through." — Gary Conner, Woodlake, Neb.