

Text PPP Agritechnica 2022

Slide 1:

***** opening slide *****

Sustainable Mechanization

A story for the search of a modern and powerful tractor which a farmer is mainly able to maintain by himself

Slide 2:

myself

My name is TA, I'm a 52 year old German national, living in the Philippines since 2000. I'm a Geotechnical Engineer by profession and a farmer by heart. Since more than 10 years I do rice farming in the Philippines. I'm a founding member of Northern Calamian Farming Inc. ("NCFI").

NCFI

NCFI is a Filipino/German agri enterprise which is aiming to combine ancient organic growing methods of rice paddy farming with smart agriculture practices, mechanization and automation. Our vision is to make healthy organically grown rice available and affordable for everyone.

Slide 3:

Click 1: What if you want to reduce the production cost of rice

Click 2 and 3: and you realize that for doing this you need bigger, levelled and irrigated fields and much more mechanization.

Click 4: Then you realize that bigger areas may only be available farther from your farm, meaning you need a tractor which is faster on the road than everything you do use right now.

Slide 4:

You realize that you simply need a modern tractor with high HP, with front and back hydraulic and hitch systems and PTOs. 4x4 with differential, wide tires or even better tracs as for the wet conditions, with a cabin as for the rainy season, air for the air brakes of bigger trailers; spools, best double acting ones, at least 40 km/h fast on the road, better even 50 km/h.

But then you realize that rural mechanics too often are only able to repair up to the level of electric-hydraulic systems and not beyond this and that too often victims of this fact can be seen on the side of the road.

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Here on the example of a modern backhoe. But I saw this too often as well for tractors. We are far from any able manufacturer service station. Equipment breaks and has wear and tear – this is normal and must be considered.

Ok so we need all of these abilities but w/o anything electro-hydraulic and no other or only very simple exchangeable electronics. Well I searched and searched and simply found nothing suitable. Simple equipment has not enough horsepower, no link and PTO at the front, often no air supply for trailing. Considering older models is an issue too as for the spare part supply – if ever they already have what we want. Then one day I was on a farm in Germany for the visit of a farm biogas unit. Lots of very modern equipment. The usual set up for a size of this farm in Germany. But my interest was for an older tractor I saw standing in the barn. I asked the farmer if this one is for sale and he replied: “No way! I need this one when all the other tractors again do not run for whatever reason. This one simply always runs.”

Slide 6:

An MB-Trac 1600 Turbo. My dream when I was young. This tractor was only build until December 1991. But looking at it I realized that it simply has everything I need w/o anything I do not want for stated reasons. Could this be a solution?

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It has a higher horsepower, 4x4 with differentials, very big tires and up to 40, possibly 50 km/h fast on the road, it has a cabin, double spool valves, air supply for trailers – even an extra air outlet to get air from the tractor for any purpose – front and back hitches and PTOs. And it has an extra space behind the cabin to be used in various ways like add storage for seeds, seed container for pneumatic seeding, etc.

Slide 8:

It has 3 useable implement areas. I realized that the MB-Trac is **the solution**: ahead of his time when released, it has all we need and are searching for. Being meanwhile a collector's item in Germany next to many units still in daily use worldwide I found out that spare part supply is no issue, either from Mercedes directly or at many online shops. Almost every part is still available. They even have original operation and workshop manuals available in various languages.

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So we bought one and let it be restored from the bottom up.

Click 1: So it look at the beginning of the restoration, here still with the big tires. We reimported a unit from Southern France as for the good substance. Then we entirely put it apart.

Click 2: and here the same unit with smaller tires as simply easier to work on it. We then put it all back together again and replaced any faulty part. We placed a bigger engine, we measured 197 HP on the PTO. So we made out of a former 1500 a more than 1800 version. We placed a bigger radiator as for the tropical conditions in the Philippines. Also available from Mercedes.

Click 3: the color white we have btw chosen as for better sun reflection thus lesser heat in the cabin. This color was as well originally available from Mercedes.

Click 4: and so it looked finally at the end, leaving its 2nd birth place for the Philippines.

Slide 10:

Meanwhile we have 3 and we are very happy with it. Imagine 3 times we had already massive damage by rodents. They seem to love Mercedes Benz electrical wires. Every time we had been able to fix the issue by ourselves as made simple enough ... imagine there would be much more cables, electronic.... Game over!

Slide 11:

Farmers must be enabled to maintain and repair their equipment on their own.

There is a need in the market for modern yet simple, powerful tractors from 150 HP upwards, only electro-hydraulically driven with no or only very simple exchangeable electronics, with the possibility to attach implements at the front and at the back and at least 3 double acting spools at the back and front, better more.

With a 12 volt outlet there is always the possibility for modern electronics (implement controls, GPS, guidance, etc) to be attached but any malfunctioning of those will not affect the general functionality of the tractor. And this is what is needed.

Any questions please?