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50X1 Attached is as received

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Capital Repair Stations

1. The following is a list of the major stations in Poland. These repair centers, called ZNS (Zaklady Naprawcze Samochodowe - Vehicle Repair Shop), were under the Ministry of Road and Air Transport and were responsible for the complete overhauling of the vehicle types which are listed following the station location:

Elblag	-	Dodge, Willys (jeep) (U. S. makes)
Jelcz	-	Star 20, Warsaw (Polish makes)
Krakow	-	Fiat (Italian make)
Opole	-	Old German makes
Poznan	-	Ford, Fordson (English Ford trucks)
Solec Kujawski	-	GMC and Studebaker (U. S. makes)
Warsaw	-	Chausson (French), Leyland (English) Skoda (Czech)

50X1 These centers have, as their primary function, the repair and rebuilding of vehicles. With some of the stations are associated small factories
50X1 which manufacture new subassemblies for replacement

2. The repair stations listed above were responsible for the overhaul of
50X1 about 85% of all state-owned vehicles, the other 15% being maintained by military depots.
50X1 no military equipment was cared for at the above-
50X1 listed repair stations and there were, furthermore, no military personnel attached to them.

3. as a percentage of the total number of hours scheduled
50X1 for repairs on vehicles under the control of the entire Ministry of Road and Air Transport) the Jelcz center was responsible for 37% of all such work in Poland.

Availability of Parts and Supplies

4. At the Jelcz center there was always an adequate supply of lubricants. Parts, on the other hand, were always in short supply and while some parts were stocked, others were so short that cannibalization of vehicles was resorted to as a matter of routine.

5. Differentials for the GMC and Studebaker trucks were very hard to get. These particular parts were obtained from Solec Kujawski.

6. Repair stations generally got new replacement parts, under the Annual State Plan, from the countries which had originally manufactured the vehicles. Thus, parts for the Skoda trucks were obtained from Czechoslovakia; for the older German vehicles, from East Germany. In the smaller proportion of cases new replacement parts were manufactured
50X1 in Poland. the plan for the import of parts from Germany and Czechoslovakia was always fulfilled, whereas the plan for the import of parts for vehicles manufactured in the USSR was never fulfilled. (Enclosure 1 lists the cost of subassemblies for the Star 20 truck as of 1 June 1954.)

Norms for Vehicles and Supplies

7. the following capital repair norms which were operable
50X1 at Jelcz during 1953:

a. The depot norm to completely strip a Star 20 truck, rebore and refit the engine and, in general, make a complete overhaul of the vehicle was 580 man-hours. One hundred and eighty Star 20's were thus overhauled in a month.

b. In addition the depot was responsible for the rebuilding of 60 Star 20 engines per month, each engine rebuilding having a 120 man-hour norm.

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c. The depot was further responsible for the overhaul of 10 Warsaw cars per month, and the norm for each overhaul was 600 man-hours.

d. There was also an allowance for general repair.

8. The total planned man-hours for work done by all of the ZNS centers listed in paragraph one was 320,000 hours per average month in 1953, of which Jelcz had a quota of about 133,000. The plan for the capital repair of vehicles at Jelcz was always fulfilled.

9. The following norms apply for the number of kilometers which a vehicle was to run between capital repair operations:

Star 20	45,000 km. (engine) 80,000 km. (entire vehicle)
Warsaw	85,000 km.
Chausson	85,000 km.
Leyland	140,000 km.
ZIS	85,000 or 90,000 km.
Ford	30,000 km.
Others	50,000 km.

For a new vehicle, these norms were increased 20% until it had had one capital repair. Thus, a new Star 20 would have to go about 95,000 km. before it received its first capital repair, after which the 30,000 km. norm mentioned above would be applicable.

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the norm for the Ford was so much lower than for the other vehicles and it was due to the fact that the engine operated at a much higher number of revolutions per minute. The Poles had consistent difficulty with the V-type of engine).

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10. The average figure for the operation of a truck in Poland in 1953 was 2,500 km. per month. Buses were required to operate 5,000 - 6,000 km. per month.

11. The total number of kilometers which were to be driven by all vehicles under the jurisdiction of the national PKS was set on the basis of the total number of vehicles under each regional PKS center. If a regional PKS had 300 trucks, the norm would be about 750,000 km. per month. If 50 of these trucks were undergoing repair, the remaining 250 would have to drive this same number of kilometers, and thus would have an individual norm of 3,000 km. for that month.

12. All trucks were required to carry a trailer 35% of the time, and

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the ton-kilometer norm would never be fulfilled without this use of trailers.

13. Trucks were required to be in operation 67% of the time and buses were required to operate 76% of the time. These were critical figures, which everyone watched, as were the ton-kilometer (or passenger-kilometer) figures.

14. The slightest underfulfillment of the plan would cause the driver of a vehicle to lose his bonus, even if it lacked only one-tenth of one per cent. If, on the other hand, the norm for the entire operation was fulfilled 100%, a 35% bonus was paid, this bonus being split among the sections according to individual rank. If the operation reached 115% of plan fulfillment (in 1953) the bonus amounted to 100% of the base total wage.

15. During the year 1952, the expected number of accidents involving a state-owned vehicle was, for Poland, 300,000 accidents of all types. The Olsztyn section had an accident allowance of 280 individual accidents, and this was just about the number of accidents which actually occurred. Of these, about 15 resulted in deaths. Statistics for 1951, 1952, and 1953 were about the same. The person responsible for an accident paid for the damage. In the case of a truck driver

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attached to the PKS, he was compelled to pay damages when he was established as the responsible party in an accident.

16. The normal stock of parts at the repair stations was a 1½ - 3 month supply. For those parts which were particularly difficult to get, the stock was inclined toward the lower figure.

17. The parts stock norm was in monetary terms and the total could in no instance be exceeded by the depot. Thus, if a depot's stock allowance was 2,000,000 zloty and one part more was needed, it could not be obtained until something had been taken out of the inventory.

18. For those tires produced in Poland (the "Stomil" tire is the only Polish tire brand; it is produced in all common sizes at a factory which is located near Poznan) the truck tire norm was 25,000 m. For truck tires from outside of Poland the tire norm was 35,000 m.

19. Seventy per cent of all tires used in Poland was within two sizes, the 7.50 x 20 and the 8.25 x 20. Of this 70%, about half was of one size and half the other with 8.25 predominating slightly. Other sizes in rather common use were:

For the	Chausson	1100 x 20
	Skoda Buses	1200 x 22
	Some U. S. makes	900 x 20

20. Two types of fuel were available in Poland, but not in all areas. These two types were a leaded gasoline, and a regular gasoline. The
50X1 regular type predominated.
50X1 the norm for vehicle operations did not differentiate between the two. The following norms applied in any case:

Star 20	27 lit./100 km.
Warsaw	13 lit./100 km.
ZIS 150	27 lit./100 km.
Ford	32 lit./100 km.
Willys Jeep	13.5 lit./100 km.
Chausson (diesel)	21 lit./100 km.
Leyland (diesel)	22 lit./100 km.

3 Enclosures

1 - Price List of Subassemblies for the Star 20 Truck as of 1 June 1954
2 - Vehicles and Trailers Used in Poland as of 1 June 1954
3 - Other Vehicles in Common Use in Poland, 1953

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Enclosure 1

Price List of Subassemblies for the Star 20 Truck as of 1 June 1954

Cost of the Entire Vehicle, New	56,000	zlotys
a. Engine (new)	12,000	"
b. Rear axle assembly and drive shaft	27,000	"
c. Frame	8,000	"
d. Cab (chauffeur's booth)	7,000	"
e. Freight body	5,500	"
f. Transmission	6,000	"
g. Radiator	1,800	"

When bought for replacement, the individual subassembly prices prevailed and totaled more than a complete new truck.

Enclosure 2

Vehicles and Trailers Used in Poland as of 1 June 1954

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Make	Model	Body Type	Producer Country	Year Introduced	Location of Factory	Tonnage (m. t.)	Max. Speed (km)	Used by Military?	Remarks
Star	20	Truck	Poland	1948	Starachowice	3.5	85	yes	
Star	20	Adapted-bus	"	1954	see "Remarks"	30 persons	85	no	Chassis and engine built in Starachowice; body at Jelcz
Star	20	Cable, wire	"	1954	Jelcz	3	85	yes	Telegraph and telephone installation and repair
Star	21	Truck	"	1955	Starachowice	3.5	75	-	Prototype produced
Star	50	Bus	"	1951	Starachowice and Sanok	36 persons	70	yes	Chassis and engine produced at Starachowice
Star	50	Fire truck	"	1951	"	-	70	no	Same as bus
Star	50	Street cleaning	"	1951	"	-	70	no	Same as bus
Star	51	Bus	"	1952	"	36 persons	75	yes	Chassis and engine produced at Starachowice; body produced at Jelcz from 1954.
Star	52	Bus	"	1955	"	42 persons	75	-	Self-contained (complete) body attachable to chassis
Star	60/61	Rear-axle trailer	"	1952	"	6	65	no	
Star		Dump truck	"	1953	"	3.5	85	no	
Lublin		Truck	"	1950	Lublin	2.5	70	yes	"Licensed" production of Soviet GAZ 51
Lublin		Bakery van	"	1954	Lublin & Jelcz	-	70	no	Two models completed--used for bakery del.
Lublin		see remarks	"	1954	"	-	70	no	Two models completed--used for meat deliveries
Lublin		Ambulance	"	1954	"	6 litter	70	yes	Production planned for November 1954
Warsaw	M 20	Auto	"	1948	Zeran, Warsaw	5 pers.	110	yes	"Licensed" production of Soviet GAZ 20
Syrena		Auto	"	1954	Zeran, Warsaw	4 pers.	85	no	Three different models completed
Pionier		Auto	"	1954	Jelcz	4 pers.	75	no	Three different models completed
S.H.L.	125	Motor-cycle	"	1947	Warsaw	2 pers.	85	yes	An improved type "125" to be produced in 1955
S.H.L.	M 350	"	"	1954	Warsaw	2 pers.	110	-	Series of tests completed
P 3	P 3	Trailer	"	1948	Warsaw	3.0	-	yes	
		Spec. trailer	"	1954	Jelcz	2.5	-	no	A "lowered" trailer for special conditions"

Enclosure 2

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Make	Model	Body Type	Producer Country	Year Introduced	Location of Factory	Tonnage (m. t.)	Max. Speed (km)	Used by Military	Remarks
	1	Passenger & cargo trailer	Poland	1954	Jelcz	2.5	-	no	A "lowered trailer for special conditions"
	2	Work-shop trailer	"	1954	Jelcz	3.5	-	no	Same as above
	3	Living trailer	"	1954	Jelcz	4.5	-	no	Same as above
		Bar-bus (Snack)	"	1954	Jelcz	3.5	-	no	Only model completed
ZIS	5	Truck	USSR	1931	Unknown	3.0	65	yes	
ZIS	150	Truck	"	1950	Unknown	3.5	75	yes	
ZIS	585	Dump truck	"	1951	Unknown	3.5	75	no	
MAZ		Truck	"	1952	Unknown	10.0	70	no	"Mack Diesel License"
Skoda	706 R	Truck	Czech	1948	Unknown	7.5	75	yes	
Skoda	706 RD	Bus	"	1951		48 pers.	85	yes	
Skoda	1100	Auto	"	1947		4 pers.	110	yes	
Skoda	1200	Auto	"	1953		5 pers.	120	yes	

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Enclosure 3

Other Vehicles in Common Use in Poland, 1953.

In addition to the vehicles shown in Enclosure 2, there are a few US, English, and German makes, so-called post-UNRRA and post-German, as well as a small number of new foreign vehicles:

Make	Model	Type Vehicle	Capacity	Producer Country
Tatra	111	Truck	10 tons	Czechoslovak
Volvo		Bus		Swedish
Vagar		Bus		Hungarian
Fiat	1100	Auto		Italian
Fiat	666	Truck		Italian
Fiat	667	Truck		Italian
Leyland	LOPS			English
Leyland	OPS			English
Chausson				French
ZIM	151	Auto		USSR
GAZ	51			USSR
Chevrolet (Fleetmaster)		Auto		US
Mercedes	180	Auto		German
IFA	F8, F9	Auto		German Democratic Republic
IFA (Horch)		Truck		German Democratic Republic
Phänomen		Ambulance		German Democratic Republic
Citroen		Auto		French
Jawa	250	Motorcycle		Czechoslovak
Jawa	350	Motorcycle		Czechoslovak