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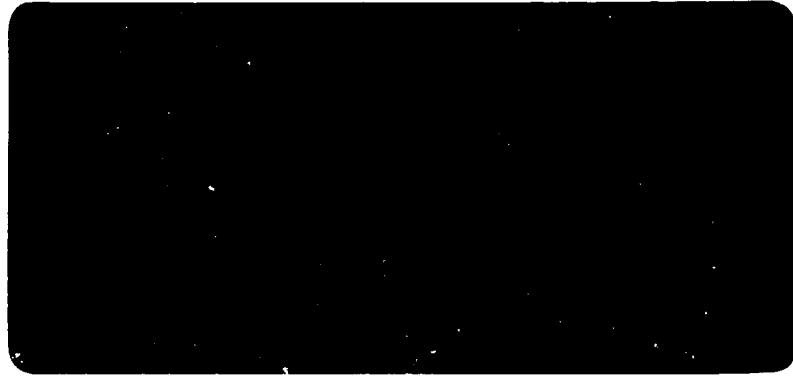
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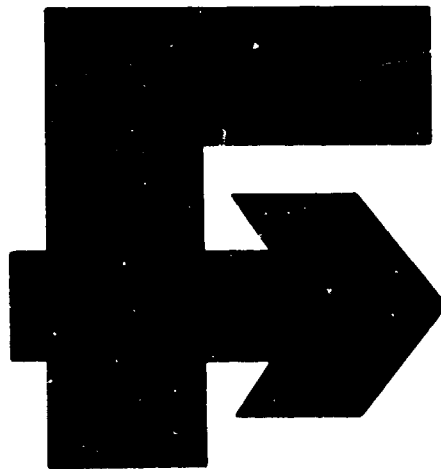
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**FIDIMI CONSULTING**





CONTRACT NO.91/307

between  
THE UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION  
(UNIDO)  
and  
FIDIMI CONSULTING S.p.A.

PLANT FOR THE PRODUCTION OF  
THREE WHEELER TRANSPORTATION  
VEHICLES (PIAGGIO DESIGN)

FINAL REPORT

JOINT VENTURE BETWEEN:

PIAGGIO GROUP  
and  
STA GROUP

UNIDO PROJECT No. TUN/007/M/90-11  
Activity Code: G01902

Roma, June 1992

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## INTRODUCTION

In November 1991 UNIDC launched a tender for a pre-investment study of a joint-venture (SAT) project for the production of three wheeler vehicles (PIAGGIO Design) in Tunisia.

Fidimi Consulting was selected and charged with the preparation of the requested study. The relevant Contract, No. 91/307, was signed on Dec. 16, 1992.

The kick-off meeting took place in Pontedera (Italy), in the office of the Italian sponsor (Piaggio) on December 1991 with UNIDO IPO Representative.

A field visit to Tunisia was made by Fidimi Consulting in January 1992 and followed by a visit to Morocco and Algeria in February.

The pre-investment study was developed on the basis of information provided by the Project Promoters and data collected during the field visit.

According to the Contract, Fidimi Consulting carried-out the services and submitted the Draft Final Report to UNIDO on April 27th, 1992.

UNIDO accepted the Draft Report (ref. fax from UNIDO IPO Milan dated June 16th, 1992).



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SUMMARY OF BASIC DATA AND RESULTS

PROJECT NUMBER: US/GLO/89/126

PROJECT TITLE: Plant for the production of three wheeler vehicles

COUNTRY: Tunisia

EXCHANGE RATE: 1 DT= 1352 It.lire - 1 US\$= 1250 It.lire

PROJECT SITE: Tunis - Industrial Area

PRODUCTION: 5000 three wheelers/year after 5 years

TOTAL INVESTMENT: Fixed assets: 6,87 million Lit (5,5 million US\$)  
Net Working Capital: 2,915 million Lit (1,4 million US\$)

EQUITY/DFBT: 0.45 in 1994

REVENUES: 21,665 million Lit (17,3 million US\$)

TYPE OF CO-OPERATION: Joint Venture

TUNISIAN PROMOTER: SAT Group (STA Holding)

ITALIAN PROMOTER: PIAGGIO V.E. Pontedera (Italy)

EQUITY COMPOSITION: PIAGGIO Share: 35%  
SAT Group (STA Group) Share: 65%

RESULTS: BASE CASE: I.R.R. 23.23%  
Payback Period 5-6 years  
N.P.V. (@16%) 3,495 million Lit  
(2,8 million US\$)

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## 1 EXECUTIVE SUMMARY AND CONCLUSIONS

### Project Outline

The Project is a Joint Venture, promoted by an Italian and a Tunisian firm, with the purpose of setting-up and operating a factory for the production of three wheeler vehicles in Tunisia.

The final production output of the plant has been fixed at 5000 units (APE 501 and 601).

During the first 4 years an important part of the production will be re-imported by the Italian sponsor. This "buy back" will come to a complete stop at the end of the fifth year.

The production for the Maghreb and African market will gradually be developed along with the commercial network distribution and the nominal level will be reached only at the end of the fifth year.

### Promoters

The Promoters of the Project are:

PIAGGIO HOLLAND  
Pontedera (Pisa)

SAT Group (STA HOLDING)  
Tunis

The SAT Group is a company of STA Holding, which is an integrated body active since early 1980 in various sectors: phosphate mining, goods transportation, tourist resort exploitation (hotels, restaurants, residential centers), industrial activity (three-wheeler assembly and commercialization).

The STA Holding is employing about 1.500 persons. It is a well-known and greatly appreciated Tunisian entrepreneur group and has established good working relations with many other firms in the Maghreb context.

Piaggio is a well known industrial firm, worldwide market leader in the three wheeler vehicle and scooter sectors.

The company has been producing transportation vehicles - including airplanes - for over 40 years. PIAGGIO has a special position in the history of industry, having created innovative vehicles like the VESPA-scooter and the three-wheeler APE.



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This last vehicle has been on the market for 30 years, undergoing several transformations.

### Market

The results of the market survey carried out can be summarized as follows:

- The Main potential market for the SAT vehicle is represented by the Maghreb one. The Tunisian location of the SAT plant gives special advantages, such as a consistent import-tax reduction directly transferable to the final prices.

The market of transportation vehicles is dominated by the French pick-up vehicles (like Renault Express) followed by Japanese and other similar European vehicles.

The overall performance (especially for long-distance services) and the prices of these vehicles are very different compared with those of the future SAT vehicle.

No competition should arise, except for the transportation within urban areas in which the higher maneuverability of APE could allow the effective transportation of loads of about 500 Kg. It is estimated that a quota of this market will be easily acquired by the smaller vehicle as well as an equivalent one represented by the end users that up to date did not buy an imported transportation vehicle for cost reasons.

The cheaper price should encourage vehicle's market penetration. It is reasonable to assume that after 5 years the Maghreb market shall account for 3.500 units/year; the remaining 1,500 will be exported to other African countries.

However the Tunis option has been preferred mainly because this town represents the main market in Tunisia for the SAT vehicle; the unification of the technical assistance shop and the production plant will be a key factor of efficiency.

### Materials and Inputs

The production cycle is based on the assembly of semi-finished parts CKDs. The materials used for these components (steel sheets and pressed parts, plastics, rubber, etc.) are partially available in Tunisia or in other Maghreb Countries.

However not all the transformation processes are possible in Tunisia given the lack of suitable plants. The sheet deep-drawing of the front and rear panels and of other vehicle



components require an extremely high pressing-power, not available in Tunisia. On the contrary, several other simple transformations and sub-manufacturing processes could be realized.

A specific research has been carried out (completing PIAGGIO's preliminary study) to identify potential local suppliers of materials and sub-components.

The result has been quite favourable demonstrating that 40 to 55% of the vehicle's parts (in value) could be supplied or manufactured in Tunisia. This high local integration makes it possible to benefit import tax reductions in all Maghreb Countries and to gain a higher stability in case of strong devaluation (Tunisian Dinars against Italian Lire).

#### Location

The town of Sousse, in which the painting plant of STIA is located, has been considered as an alternative to Tunis. This location should be the most rational from a production point of view.

Different alternative locations have been investigated by the Promoters in order to select the most suitable one for the Project.

#### Project Engineering

Within the battery limits of the factory all the facilities required for the production and operation will be installed, namely:

- Process plant machinery and equipment
- Production utilities and distribution equipment
- Offices and warehouses
- Other service facilities, such as roads and parking areas, entrance guard and fencing, etc.

The production process will be based on the technology developed by the Italian Promoter, PIAGGIO, who will also carry out the basic and detailed design and provide procurement services for the imported equipment.

The Tunisian Promoter - owner, among others, of the industrial building - will collaborate to supervise the implementation activities (civil works rehabilitation, supply and construction of locally available equipment).

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The total investment cost of the Project amounts to 6,876 million Lit. which 4,593 M US\$ are in foreign currency ( 67%) and 0.908 M US\$, corresponding to 0.840 M DT, are in local currency (33%).

#### **Plant Organization and Overhead Costs**

Fixed factory costs foreseen during the production phase of the project to cover Maintenance and Repairs, Spare Parts, Factory Overheads, Administration and Marketing expenses, are estimated 16,800 million It lire equivalent to 13 M US\$, at full capacity operation.

#### **Manpower**

The Project will employ 120 units for the different activities of the Factory, for a total yearly cost of 446 million It lire (357,000 US\$).

#### **Working Capital**

The net working capital requirement for the financial operation of the Project amounts to 2,915 million It lire (1,4 million US\$)at full operation of the plant.

#### **Implementation**

Project implementation will require an estimated period of 6 months, including plant commissioning and performance tests.

During said period all the initial investments will be realized and the required financial sources should be activated.

The implementation phase has been divided into 5 periods: the first 4 periods are devoted to civil work completion and plant construction, while the last one foresees start-up activities (plant erection, start-up and performance tests). The last period falls in the first year of the production phase.

The total initial investments have been distributed among the implementation periods, according to the expected plan of activities.



### Financing scheme

- The Project financing will be based on an Equity/Debt Ratio of 0.45.

#### EQUITY (4,000 million Lit = 3,2 million US\$)

- The Tunisian Promoter, STA Group, will subscribe 65% of the total equity, amounting to 2,600 million Lit. (equivalent to 2 million US\$).
- The Italian Promoter will participate to the Joint Venture with 1.400 million of Italian lire (1,2 million US\$ which represent 35% of total equity).

#### LOANS

The following possible sources have been examined in the financial analysis (scenario 1 and scenario 2)

##### - Commercial Loan

Amount: 3,376 million Lit (2,7 million US\$)  
Interest rate: 11%  
Amortization: Constant yearly rates, lasting for 7 years  
Grace period: 3 years from the last installment

##### - Loan from The Italian Cooperation Fund to Tunisia

Amount: 3,376 million Lit (2,7 million US\$)  
Interest rate: 4.75%  
Amortization: Constant yearly rates, lasting for 5 years  
Grace period: 3 years from the last installment

### Tax

According to the Tunisian legislation regulating the industrial activity income tax on company's profit are equal to 35% on Gross Profits (Operating Margin, including Depreciation, less Cost of Finance) only for the sales on Maghreb Area. Exports toward Italy are tax-free.

### Examined Cases

The following Cases have been analysed, utilizing the COMFAR Model.

BASE CASE: The integration degree of local suppliers has been assumed equal to 45% and the Tunisian suppliers cost equal to the corresponding one of Italian suppliers (ratio = 1). Two different loan sources have been considered: commercial loan (scenario 1); loan from Italian Cooperation (scenario 2).

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- CASE 1: The integration degree of Tunisian suppliers have been modified assuming 50% and 55%.
- CASE 2: The cost of Tunisian suppliers have been increased in respect to the corresponding Italian one (coefficient 1.2, 1.3, 1.4)

The following table reports the IRR values obtained: (%)

<u>Tun. Suppliers Cost</u> <u>Ita. Suppliers Cost</u>	Degree of integration (%)		
	45	50	55
1	23,20	23,20	23,20
--> 1,20	17,50	16,70	15,90
1,40	11,40	9,20	7,20



## CONCLUSIONS

The joint-venture between SAT and Piaggio is an extension of an already existing collaboration. For many years SAT has been the local distributor of the APE Piaggio three-wheeler.

The project foresees a first period (4 years), in which a large part of vehicles production will be exported to Italy. At the same time the distribution network inside Maghreb will be established and sales are expected to progressively increase.

After the fourth year the exporting to Italy will be stopped and the entire production volume (about 5.000 vehicles) will be distributed in Maghreb and other African Countries.

The APE vehicle is a mature product on the European market but it should be appreciated on the African market, still for a long time. In fact this model, offering a good compromise between price and load capacity, has specific operational characteristics, like manoeuvrability in urban centers, particularly suitable for North African towns.

If this competitiveness will not be maintained for the 15 years of project life, PIAGGIO has already planned the introduction of more advanced existing models. The corresponding investment would not be relevant also considering that the large part of the present equipment will be suitable for new product assembly lines. For this reason this product change has not been considered in the present evaluation, but a more detailed medium-term strategy should be recommended.

The market study has demonstrated that the foreseen sales could be performed only if 40% of global vehicle cost corresponds to local manufacturing. In fact trade agreements among Maghreb members established that import tax can be reduced, only if goods produced in a member country have a 40% local content.

Hence the crucial point of the project is the possibility of purchasing suitable components from local suppliers given that the direct SAT contribution, represented by the vehicle assembling, is rather poor.

In the present analysis this aspect has been analysed and two parameters have been assessed: technical quality of the supplying (including delivery time) and cost.

Several suppliers - representing different component categories - have been visited and called to submit a financial proposal.

At present only a few offers have been received, while others are arriving. The first answers seem to indicate that, even with the lower cost of manpower, the local supplying cost could still be higher than the Italian one, also as consequence of the particularly reduced production volume.



From the side of the technical suitability the local suppliers have shown, on average, an acceptable capacity, but they undoubtedly need an initial technical assistance to optimize their product quality standard.

As generally observed in all vehicle-producing countries, a strict collaboration and technological transfer between component suppliers and vehicle manufacturers have to be established.

In Tunisia the Italian Sponsor, having the technical "know-how", has to organize a detailed plan of actions for the suppliers qualifications, training and quality monitoring.

The economic and financial analysis of the project - carried out using UNIDO-COMFAR software - showed a positive profitability performance. However it has also been demonstrated that if the cost of the local suppliers, assumed equal to the corresponding Italian one in the base case, is increased by more than 40%, this could place the project in a non-profitable area.

Another crucial point arising from COMFAR analysis is the negative currency balance of the project. It should be stressed that the export to other Maghreb countries cannot generate foreign exchange earnings, due to specific agreements among member states.

This is not a specifically weak-point of this joint-venture. It is rather common for manufacturing projects, based on component imports and which do not re-export their products, to show a currency deficit. Nevertheless, the global country's currency-balance generally takes advantage due to the "import substitution" of the final products. However some recent experiences (STIA case) showed that a high devaluation of local currency is not completely absorbed by product price increase. Only high degrees of integration of local suppliers can assure a reasonable project stability. In the case of STIA, which had a 15% integration, the dinar devaluation placed the company in loss conditions obliging the vehicles production to be suspended.

This is another reason for which the mentioned Piaggio plan of technical assistance to local suppliers has to be carefully organized and carried out. This has to be considered an investment and not a cost for the project.



## 2 PROJECT BACKGROUND AND HISTORY

The Project is a Joint Venture promoted by the following Tunisian and Italian Firms: SAT Group (STA Holding) and PIAGGIO.

Purpose of the Joint Venture is to build-up a factory for the production of three wheeler vehicles in Tunisia, with sales targeted mainly in the Maghreb countries.

Two base-models will be produced APE 501 (50% of production up to 1992) and APE 601 (100% after 1996).

The APE 501 Model will be produced only for its re-importation on the Italian market, during the first years.

The Project is partially export oriented: At full production:

	Sales %
Tunisia	14
Other Maghreb	56
Export	30
	<hr/>
	100

Tunisia welcomes foreign investment and technology transfer.

The strategy for the industrial sector is based upon (i) Development of cooperation with foreign partner (joint-venture); (ii) efficient use of capital; (iii) improving infrastructural facilities; (iv) modernization and upgrading of technology; (v) restructuring of industry; and (vi) identification of thrust areas for export.

During the last years, the Government of Tunisia has fully reviewed the role of foreign investment in the economic development of the country, streamlining the procedures relating to foreign collaboration, investment, repatriation of technology fees, with the main objective to promote a larger flow of foreign investment into the country. A number of important policy measures have been taken to sustain foreign investment. A special law for the industrial activity regulation was promulgated in 1987 (law n.87-51).

This law supports export-oriented projects with the following incentives:

- Full tax exemption of earnings;
- Unrestricted repatriation of profits;



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Even the industries that are not wholly export-oriented take advantage of this law with several incentives, such as the suspension of turnover tax on capital goods imported or purchased from local manufacturers and on services from local producers.

In this context SAT Group and PIAGGIO have been collaborating for many years in the final assembly and local marketing of APE Vehicles in Tunisia. At present operations are quite limited (about 100 vehicles sold yearly) and the expansion of the joint-venture with the transfer of a larger part of the manufacturing in a new shop of Tunis aims at decreasing production cost and obtaining the foreseen import tax reduction in Maghreb Countries. As already reported this requires a local integration of at least 40 %.

Project success relies on the following crucial points:

- the actual market size;
- the quality and reliability of local suppliers.

These points have been considered as the main subjects of the foreseen pre-investment study.

Fidimi Consulting S.p.A. was selected by UNIDO and charged with the preparation of the requested feasibility study.

### 3 MARKET AND PLANT CAPACITY

#### 3.1 Introduction and Summary

##### 3.1.1 Maghreb Area (Tunisia, Algeria, Morocco) - Overview

The passenger and transportation vehicle markets are characterised by specific aspects.

An increasing demand due to road network expansion and a shift towards European lifestyle standards.

However this is met by an insufficient vehicle offer, because of high purchasing costs (import duty) and the difficulty in obtaining the currency needed for import transactions. The used vehicle market is affected by the scarce availability of spare parts.

To overcome these problems vehicle assembly plants have been established (STIA in Tunisia, SMEIA, SAIDE, AUTO HALL in Morocco, FIAT project in Algeria). These however have encountered great difficulties owing to the 1985-88 economic recession suffered by the Maghreb countries and to the consequent devaluation of local currencies.

The main problem to be solved is the poor integration of local production - due to lack of a qualified sub-manufacturers of components - and the consequent strong dependency on importing CKDs in hard currencies.

##### 3.1.2 Commercial Vehicle Market in the Maghreb Area

It can be predicted that SAT's forthcoming activity in the sector of medium and small transportation vehicles will be developed in the following scenario:

- at present French vehicles are market leaders (Renault Express, Peugeot 504, to a smaller extent Citroen C15, FIAT Fiorino, VW Transporter and Japanese models). The introduction of Japanese mini vans has been attempted several times without success, however numerous initiatives are set to rise in the near future for their importation or local assembly. Generally commercial vehicles are used on both urban and suburban routes.

Hereafter is a table summarizing the data collected in the various countries on sales, competition and prices.



Tunisia - Sales of Vehicles with a 500 kg max loading capacity

	1986	1987	1988	1989	1990
- Local production	1.104	917	61	0	0
- Imported vehicles	67	41	96	2.469	1.123
	<u>1.171</u>	<u>958</u>	<u>157</u>	<u>2.469</u>	<u>1.123</u>

The interruption of local production is a consequence of STIA's crisis. The production of PSA Group vehicles came to a stop in 1988.

The sales of vehicles with a 500-1250 kg loading capacity nearly tripled in 1990.

The circulating fleet with a 500 kg max loading capacity is estimated to be 15,000-20,000 units.

Algeria - Transportation Vehicle Sales (vehicles/year)

	1986	1987	1988	1989	1990
- Imported vehicles	24,056	12,489	8,425	n.a.	n.a.

Most recent official statistics of ONS (Algerian National Statistics Office) refer to 1985 (those shown have been obtained from a French research study). Data is quite aggregate (among transportation vehicles are included trucks and buses). According to findings in Algeria it is estimated that the majority of transportation vehicles are classified by ONS as small and medium vehicles and that 1990 sales are rising. Said estimate can be made considering an average volume of sales of 8,000-10,000 units, of which 6,000-7,000 vehicles with a 1,500 kg loading capacity and 2,000-3,000 vehicles with a 500 kg loading capacity (the most popular category).

The transportation vehicle fleet is estimated at over 100,000 units.

Marocco - Sales of vehicles with a 1,200 -1,500 kg max loading capacity

	1986	1987	1988	1989	1990
- Local prod. vehicles	n.a.	2,246	2,509	2,971	3,214
- Imported vehicles	n.a.	118	28	109	153
	<u>n.a.</u>	<u>2,364</u>	<u>2,537</u>	<u>3,080</u>	<u>3,367</u>

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It is estimated that 1,500-2,000 vehicles with a 500-600 kg max loading capacity shall be sold in 1990 and that around 60,000 units shall be in circulation.

### 3.1.3 Competitors and Prices

In the three countries certain similarities can be outlined as shown in the following table:

	(competitors)		
Trasp. Capacity	TUNISIA	ALGERIA	MAROCCO
Low	Renault Express Citroen C15 Suzuki Curry King Motor Maghreb Motor	Renault Express Citroen C15 Fiat Fiorino	Renault Express Renault 4F Renault Traffic Citroen C15 Dahiatsu S84 Suzuki Curry
High	Peugeot 504 Isuzu pick-up	Mazda B1600	Peugeot 504 Isuzu pick-up Mitsubishi K14

The Honda TN7, out of production since 1985, is quite popular in Marocco.

Besides the Japanese and European models, there are locally manufactured vehicles (King and Maghreb Motor). Despite extremely low prices they sell badly because of poor reliability and after sales service.

The selling price of new vehicles goes from 12,000-15,000 USD for those with a light loading capacity and over 15,000 USD for heavy ones.

In Tunisia technical assistance is quite aleatory. Purchasing practices are long and spare parts are rare, obtainable only on the black market and for brief periods of time. The situation in Algeria is just as gloomy. However this year dealers are starting to spring up, ensuring direct sales and assistance. The Maroccan situation is better.

As far as used vehicles are concerned, prices range according to age and efficiency. A Renault Express in good conditions can be purchased at 5,000 USD, which should be considered as a maximum reference price for the SAT vehicle.

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### 3.1.4 Sales Estimates in the Maghreb Area

In the three countries under examination the potential market for the APE can be divided as follows:

- an already existing market share of transportation vehicles with a 500 kg. max loading capacity that can be penetrated with low prices, short delivery times and reliable assistance;
- a market share composed of new users induced to purchase because of low prices and a better manoeuvrability of the vehicle on urban routes.

At the end of the commercial implementation phase (5 years), it is estimated that SAT will account for 30% of the actual market of vehicles with a 500 kg max loading capacity and for an equivalent share acquired among potential new consumers.

On the ground of these considerations the following estimates can be made:

Tunisia - 675 vehicles  
Algeria - 1,345 vehicles  
Marocco - 1,010 vehicles

Being the above rough estimates, they can be rounded off to: 700 for Tunisia, 1,000 for Algeria and 1,000 for Marocco. A more cautious estimate has been made for Algeria, given the lack of disaggregate data.

### 3.1.5 Sales Estimates on other African Markets

#### 3.1.5.1 Libya

The Libyan market of transportation vehicles accounts for over 30,000 units yearly and among the Maghreb countries it has the most potential. Japanese manufacturers are market leaders, controlling 90% of the transportation vehicle sector and almost entirely the passenger vehicle one (over 50,000 units/year). The lack of a specific marketing project makes the assumption of a reference figure quite difficult.

A minimum volume of 700 vehicles/year, equivalent to the Tunisia one, could be accepted.



### 3.1.5.2 Other African Countries

Other African countries could be considered reference markets, with particular emphasis on the Arab and Middle East markets. Egypt (over 5,000 pick-ups sold in 1988) should be capable of absorbing several hundred units. With reference to the 16 African countries having authorised Piaggio dealers, an yearly average sale of 100 units per country can be assumed (over 1,500 units/year).

## 3.2 APE: The Product, Uses, and Market Trends

### 3.2.1 The Product

APE, the commercial three wheeler vehicle manufactured by Piaggio, the most important specialized company in this field, was entirely developed at home in the early 60s.

In recent years the APE has undergone technical and aesthetical improvements. Current models with revised body and features, respect the original design: front wheel cabin joined to a small two wheel pick-up.

The vehicle is produced in various models: wide range of different engines and technical performances.

The "P.601", the model that would be produced in Tunisia and commercialised in Maghreb, is available in 7 different versions: chassis, pick-up, long pickup, dump truck, van, dump truck van and coach.

The APE P.601 has a single cylinder 2-stroke engine, connected to the gearbox and differential over the rear wheels. It is fuelled by low grade gasoline, and has an effective maximum horsepower of 10.28 HP at 5.000 r.p.m..

Other technical features include: a maximum loading capacity of 616 Kg (with an inner dimension of the platform in the standard pickup version of 1700x1400 mm), a maximum effective speed of 60 Km/h, and fuel consumption varying between 4.6 - 9 lt. per 100 km according to the different conditions in which it is used (load, speed, type of road, traffic).

The motor features some particularly interesting innovations such as separate lubrication and electric ignition.

It has been enlarged so as to allow utilization of the propeller at the lower r.p.m., with consequent reduction of wear on the mechanical parts and consumption.

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The "P.601" APE has steering-wheel and gearshift as in ordinary vehicles, instead of APE's traditional gearshift connected to the handle-shaped steering-wheel.

The motor is situated in the rear, ensuring silence and the total absence of vibrations in the cabin, which has room for two people.

The position of the barycentre, low and well in the rear, gives to the vehicle good stability and road-holding, even on slippery and muddy roads.

Standard equipment includes heating, electric starting, electric windshield wiper, cabin lighting, spare wheel (stored under the seat); the side air vents are larger, furnishing excellent ventilation inside the cabin.

### 3.2.2 Uses of APE and Market Trends

The possibilities of use are practically endless in the most varied sectors and under extremely different conditions.

The APE, thanks to its minimum bulk, to its great ease of steering and to a very low turning radius is a very practical and easy driving vehicle.

In Italy, where this vehicle is very common throughout the country, it is used for different purposes in a large part of the industrial and commercial sector, both in daily city and suburban traffic for short or middle range journeys.

Italy is the only important market for the three wheeler APE, presently absorbing the entire production of Piaggio (around 29,000 units per year); only a small number of three wheelers (around 1,000 units yearly) are sold abroad, especially in Germany, France and Portugal mainly to the public sector.

Although the APE wasn't particularly known abroad, in the seventies Piaggio joined forces with an Indian company for the production in India of the three wheeler.

After twenty years, the APE, in India, is still a very popular vehicle for both commercial and private purposes.

Considering Italy alone as a reference for the apparent demand of the vehicle, the market for three wheelers flourished from after the Second World War until the seventies.

The three wheeler was in fact the country's best-selling commercial vehicle, thanks both to its overall performance and its affordable price.



Despite the reduced market demand, the APE is still considered a good commercial vehicle with high performance standards, very competitive price and extreme versatility.

In fact up to 1988 Piaggio has been a market leader in the segment of commercial three wheelers with a loading capacity of up to 1 ton and in the last two years was surpassed only by Fiat, Piaggio's owner.

But notwithstanding the fact that Piaggio is still a market leader, the Italian three wheeler market should be considered, at this point, mature.

### 3.2.3 Manufactures and Price

The manufacture of the three wheeler, as stated above, is concentrated in Italy by Piaggio and in a state owned-factory in India following a joint venture with the Italian company.

Japanese manufacturers, especially Suzuki, also designed a three wheeler for commercial purposes for the Far East market, but this model has been out of production for many years.

Other car or motorcycle manufacturers have for several years produced three wheelers, for example Moto Guzzi in Italy and Leyland in UK, with little success and poor results.

The price of the three wheelers produced by Piaggio varies according to the different models, from 3,500 US \$ for the 50 cc APE, to 9,000 lit for the largest model (prices not including V.A.T.).

Referring to the models that are expected to be manufactured in Tunisia, the APE "P.601" is now out of production in Italy. The similar "P.501" model at 4,700 US \$ could be considered (this last model being scheduled to be assembled in Tunisia and resold in Italy).

The three-wheeler vehicles are distributed throughout Italy by the network of Piaggio dealers, who in most cases provide after-sales service.





### 3.3 APE Market Survey

#### 3.3.1 Profile of End User of APE

Below is a table of the average sales of APE in Italy, divided into user sectors.

<u>Sectors</u>	<u>APE share</u>
Industry	3.3%
Delivery services	1.6%
Agriculture	46.5%
Food delivery	9.0%
Other delivery	3.6%
Street traders vendors	8.5%
Artisans	14.5%
Car alternative	6.4%
Public body	3.0%
Others	3.5%
	<hr/>
	100.0%
	=====

Source: Piaggio

The table shows a very high concentration of consumers in the agriculture sector. This is evidence of the stability of the three wheeler even on muddy roads.

#### 3.3.2 Characteristics of the APE Market

The overall Italian vehicle market in the last year has suffered a decline in industrial production and in consumer demand. The same trend has been repeated for small commercial vehicles.

With regards to small commercial vehicles, this period of crisis has been caused by the reduction in the quantity of goods transported.

In the first half of 1991 there was a considerable market, whereas the second semester showed a slight revival of activity.

The end result of the year, however, showed a reduction of approximately 4%.

The most important decline in sales was in the three wheeler segment (Piaggio's leading area) with a reduction of 14.5%, followed by the van segment with a reduction of 8.5%.

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Only the minivan segment achieved good results with an 11.4% increase.

Companies that introduced new vehicle models or large advertising campaigns have been well repaid.

Manufacturers with new vehicles include Volkswagen, who obtained an increase of 71%, while large advertising investment increased Nissan's sales by around 63%.

All other major European car manufacturers suffered from the market crisis experiencing consistent reduction in sales.

This scenario is not very positive for Piaggio either, although the company improved its overall output in sales with the new commercial four wheeler model, the "POKER".

### 3.3.3 Competitors

The APE could be classified into two categories: vehicles with a loading capacity of up to one ton, and vehicles with an overall weight of up to 3.5 tons.

As stated above, all the European and Japanese manufacturers are present in the commercial three-wheeler segment, notwithstanding its minor importance in the overall vehicle market.

Many models with different loading capacities have to be considered in this segment: vans, pickups and minivans.

The following table shows the results of the top fifteen models in the 1990/1991 period (up to October 1991):



Company	Model	Loading Capacity (1)	Units Sold (2)	Variation 1990/91 %	Market Share %	Market Position
Fiat	Fiorino	3.5/4	12.304	-21,7	8,4	1
Piaggio	APE 50	2	9.964	0,8	6,8	2
Fiat	Ducato 14	14/16	8.517	10,6	5,8	3
Piaggio	APE TM P.703	7	6.880	-19,8	4,7	4
Ford	Transit	9/13.6	6.843	-20,7	4,7	5
Ford	Transit	15/20	6.132	16,5	4,2	6
Iveco	35.8	15/17	6.126	26,2	4,2	7
Fiat	Ducato 10	7/13	6.098	5,1	4,2	8
Renault	Express	4/6	5.141	N.A.	3,5	9
VW	Transporter	7.5/10	4.973	118,5	3,4	10
Iveco	35/10	17	4.912	-40,2	3,3	11
Fiat	Ducato Maxi	17/19	4.337	-20,4	3	12
Nissan	Vanette	8.2	4.089	99,4	2,8	13
Piaggio	APE POKER	8.5	3.079	N.A.	2,1	14
Fiat	Panda Van	3.1	2.785	-33,6	1,9	15
	OTHERS		45.826	-2,7	37	
TOTAL MARKET			138.006	-2,9		
			=====	=====		

(1) in 100 KG

(2) up to October 1991

Data: Piaggio

The most important vehicles to be considered are the VW Transporter, the Nissan Vanette and Trade, the Fiat Fiorino and Ducato, the Renault Express, and the Ford Transit.

The German and Japanese vehicles and Piaggio's APE POKER achieved the best market results.

Piaggio's three-wheelers maintained their strong position on account of two of the top five models.

Lastly considering the market trend for different classifications of vehicle, the large increase of the pick-up compared with the van should be noted.



### 3.4 APE in Tunisia

#### 3.4.1 The APE market

The APE vehicle is well-known by the private and public sectors in Tunis, even if the high price, discourages market penetration.

The total number of APE vehicles sold in the country could be estimated at approximately 1,000/1,500 units.

They are used in the garbage collection service carried out by the public department of Tunis, and for private in-city transportation of food and general goods.

The APE is not known in the suburbs where it is totally absent.

The APE drivers working in the city are satisfied with the vehicles, both for its loading capacity and for its technical performance.

The APE has been also appreciated by the manager of the garbage collection service of Tunis, who works with nearly fifty vehicles (of the total 100 bought) which has an average lifespan of 4 years.

The APE owners pointed out the following problems with the vehicle:

- bad door-closing system; frequent breakage of clutch cable; spark plugs requiring frequent substitution; oil leakage in some parts of the wheel transmission; electric cable faults; gears not always working well (probably caused by bad driving);
- very poor after sales service (this is considered very important);
- lack of expert mechanics for engine repair.

Another problem pointed out by private consumers was the high cost of the vehicle and of spare parts.

In the south of the country the vehicle is not very popular, and only used by the Gabes local authority, while the private sector does not appear to know the APE and its versatility.

The south of Tunisia represents a good sales market both in the large agriculture sector and in the hotel and tourist sectors, that could be interested in the coach model.



### 3.4.2 Consumption and Forecast

The Tunisian automotive market is determined by a middle term economic plan, which fixes the ceiling of imported vehicles.

For this reason buying a vehicle in Tunisia is very difficult both for limited availability of vehicles (it is possible to wait up to 2 years for the keys) and relatively high price.

One other important point for Tunisian drivers is the lack of and the very high cost of spare parts, which in some cases are bought on the black market.

The APE segment in the country, taking into account the classifications of the customs office, could be considered in the following two categories:

- commercial vehicles with a maximum loading capacity of 0.5 tons;
- commercial vehicles with a maximum loading capacity of 1.25 tons.

All vehicles in these two groups are imported, the state-owned car assembly plant Stia having stopped its activity in 1988 because of the very high cost of the vehicles produced (presently Stia assemble only lorries and coaches under licence from foreign companies).

In 1989 the Japanese company Isuzu joined with the US General Motors for the assembly of cars in Kihroun, and the first stock of commercial vehicles has been marketed in November 1991.

The overall commercial vehicle market appears to be on the rise despite the difficulties mentioned above.

Below are the figures relevant to the quantity of cars imported and produced in Tunisia from 1986 to 1990:



	1986	1987	1988	1989	1990
Up to 0.5 tons:					
Imported	67	41	96	2.469	1.123
Local Production	1.104	917	61	0	0
Total:	1.171	958	157	2.469	1.123
	=====	=====	=====	=====	=====
From 0.5 to 1.25 tons:					
Imported	6.271	974	1.534	1.771	2.985
Local Production	1.096	1.239	626	0	0
Total:	7.367	2.213	2.160	1.771	2.985
	=====	=====	=====	=====	=====

Source: Annuaire Tunisien de Statistique

Assuming that the APE can be marketed at a price consistently lower than the present one, and that over a middle term period non-stop commercial and distribution efforts are carried out, the following data can be estimated.

The potential local demand could amount to 500-600 units per year with a price of 5.000/6.000 US \$.

This forecast is confirmed by managers of the Tunisian company selling APE and by dealers of the sector.

With a higher price, sales forecasts are difficult, given the competition of the second hand market for the pick-up and the van (see also chapter 3.3.3).

### 3.4.3 Price

The production cost of the APE has been determined considering the cost of CKD components sourced from Italy and locally made.

The retail sales price also takes into account the profit margin of the distribution company, Jughurta Manutention, fixed at around 25%, and 17% of V.A.T.

Considering these factors the sales price could be estimated at 5.000/6.000 US \$, which represents a reasonable price for the vehicle's introduction into the country.



The price of competitors' vehicles in Tunisia are shown in the following table:

Manufacturer	Model	Price US \$
Peugeot	504	15.000/17.000
Citroën	C15	10.000/12.000
Renault	Express	12.000/13.000
Isuzu	Pick-up	14.000/15.000
Suzuki	Curry	9.000
King Motor	King	8.000
Maghreb Motor	Furgonett	7.000/8.000

Source: Data compiled by Fidimi

Prices on the second hand market should also be considered with regards to two very old vehicles still in use: the Peugeot 404 and the Citroën Aquadiane, produced until 1988 by Stia.

For the former, taking into account the general condition of the car, the price varies from 5.000 to 8.000 US \$, while for the latter the price is around 5.000 US \$.

There is no second hand market for the other vehicles listed, as they are new models.

#### 3.4.4 Distribution

In Tunisia the sale of cars is organized by each company, based mainly in Tunis, while in other areas of the country the distribution network is poor.

Jugurtha Manutention, whose headquarters are in Tunis, should carry out, following the joint venture programmes, the distribution of the vehicles throughout the country, and should support the business with adequate after sales service.

Presently, however, the company doesn't have an adequate strategic plan for sales and distribution policy especially for the south of Tunisia. The possibility of joining FIAT for distribution seems unlikely.

Sales in the south should be supported by a heavy advertising campaign, as the vehicle is little known in this area.



### 3.4.5 Competition

As reported in the table of prices the competition considering the segments up to 1.5 tons of loading capacity is represented by the French companies, by the new company Isuzu and also by the two Tunisian companies.

The following table shows the features of the competitors:

Company	Model	Version	Loading capacity KGx100	Fuel Consumption x100 KM
Peugeot	504	pickup	12-15	10
Citroën	C15	van	4.5	7-9
Renault	Express	van	4.5	7-9
Isuzu	Pick-up (1)	pickup	14-15	12
Suzuki	Curry	minivan	8	N.A.
King Motor	King	minivan	6	N.A.
Maghreb Motor	Furgonett	minivan	6	N.A.

(1) small model

Source: Data compiled by Fidimi

The Citroën and Renault models are similar vehicles with regards price, loading and driving performances.

Their distribution is organized directly by the company mainly in Tunis, and offers a satisfactory, but expensive, after sales service.

Peugeot and Isuzu should be considered in the higher part of the segment both for price and for loading capacity; the vehicles are used mainly for long range journeys.

Peugeot organizes their own distribution, while for Isuzu it is performed by General Motors, who also manage the distribution of others brands: Opel, Bedford and Volvo.

The direct competitors of APE are the models manufactured in Tunisia and the Suzuki Curry.

#### Suzuki

The Japanese company is represented in the country by a private dealer in Tunis, which is not well organized, and which imports the Curry from Egypt where it is manufactured.

The pickup is considered very expensive and the complete absence of spare parts is a well known fact.





### Tunisian Models

The King, a four wheel commercial vehicle, has been manufactured for two years (similar to the APE POKER).

Sales have been slow, only 50 units have been sold. Both public and private sectors are dissatisfied with the technological level of the domestic product.

Spare parts are difficult to find and the pickup displays many driving problems.

Maghreb Motor's commercial four wheeler has been a complete failure, because of the poor quality of the components.

Only a few units have been sold, and the company is no longer active.

The brochures of the Tunisian models have been enclosed.

### 3.5 APE in Algeria

#### 3.5.1 The Ape Market

Three wheeler vehicles are practically unknown in Algeria.

The most common light transportation vehicles are the Peugeot and Renault pick-ups (around 71 % of the whole vehicle fleet is represented by these two French companies).

More recently the Japanese pick-up Mazda reached a relevant position on the market. Fiat - Fiorino vehicles are also present.

It is very difficult to determine the exact size of this market and to analyse its structure.

Official data are not recent. The "Office National de Statistiques" (ONS) reports are dated 1984 and give only general information without details and figures per vehicle model.

Other sources as the Customs office or other bodies in charge of vehicle imports (ENDVP, AIV etc.) also offer aggregate data without any analytical sprayout.

Most official sources give incomplete and contradictory data, nonetheless these are the only recent ones (1990).

Using also French estimates (Marchés Tropicaux), the following table has been compiled:



### Transportation Vehicles Sales

	<u>1986</u>	<u>1987</u>	<u>1988</u>	<u>1989</u>	<u>1990</u>
Imported vehicles	24.056	12.489	8.425	n.a.	n.a.

The drop in sales after 1987 is the consequence of the hard economic crisis of Maghreb countries.

#### 3.5.2 Present Consumption and Forecast

Some unofficial sources confirm a stability of sales between 7.000 and 8.000 units in 1990. Others estimate this value between 8.000 and 10.000 units.

The potential market demand is higher than the present 7.000\9.000 vehicles/year and the probability to reach past levels of 20.000 vehicles/year is linked to the economic revival of the country. Indeed an average sale of 8.000\10.000 units in the next years could be a reasonable hypotesis.

The global transportation fleet could be estimated in 100.000 vehicles.

#### 3.5.3 Price and Competition

The APE competitors have high prices (close to 20.000 US\$ for the Renault Express) due to the present import tax structure. The second hand market is however very active and the prices of used vehicles are the real point of reference.

This is also the consequence of a peculiar and efficient importing system existing in Algeria: the Algerian emigrants in Europe are allowed to buy foreign vehicles and to sell them in Algeria. No import tax is applied in this case.

This is generally done during the summer holidays when the emigrants come-back in Algeria with the same vehicle that will be sold. The income (in local currency) is let to their local families.

Similar privileges are also recognized to the former soldiers of the national liberation-war.

On the second-hand market a Renault Express in good revised conditions goes for 5,000 US\$.



#### 3.5.4 Distribution

Up to now the only source of distribution have been the official importing bodies. In this last month an important changement has been authorized: local vehicle distributors are opening their shops and dealing as in the rest of the world. Japanese distributors are already operative, others are opening.

### 3.6 APE in Morocco

#### 3.6.1 Present Consumption

The Moroccan vehicle market is characterised by the Government policy which tends to favour a local manufacturing company, and liberalize imports, especially of second hand cars.

The import programme determines on an yearly basis the number and the models of cars coming from abroad.

Marocco also has a very important and cheap spare parts market, compared with the other Maghreb countries.

The state-owned company Somaca has an yearly production capacity of 40.000 vehicles. The factory is presently working at a 25% production capacity.

Somaca assembles CKDs of important European companies such as Peugeot, Renault, Citroën, Opel and Fiat.

Referring to the small and medium sized commercial vehicles, the market trend shows the following figures for the period 1987-1990:

### Locally assembled commercial vehicles

Company	Model	1987	1988	1989	1990
Citroën	C15	608	738	912	1.134
Isuzu	KBD 26L	0	314	429	71
Mitsubishi	K14	0	0	0	115
Peugeot	504	1.018	772	664	822
Renault	4F	270	295	156	64
Renault	Trafic	350	68	452	563
Renault	Express	0	322	358	445
Total		2.246	2.509	2.971	3.214

### Imported commercial vehicles

Daihatsu	S 84L	46	22	34	82
Honda	T N 7	7	0	1	
Suzuki	Curry	65	6	74	71
Total		118	28	109	153

Source: "A.M.I.C.A.", Association Marocaine Importers Constructeur Automobiles

The above table shows three different car categories:

- the first represented by medium-sized commercial vehicles like the Peugeot 504, Isuzu, Mitsubishi and Renault Trafic;
- the second, vans such as the Renault Express and 4F, and the Citroen C15;
- the third is the segment of small commercial vehicles, including the mini pick-ups of the Japanese companies, direct competitors of the APE.

The market trend shows for the van and large pick-up a steady increase in sales, while for the mini pick-up sales are very low, because of high prices.

However the fleet of mini pick-ups in the country is estimated to be around 10.000/15.000 units.

This is the result of the high sales, of the Honda TN7, around 1980, thanks to the lower price, about 4,000 US \$.

The general condition of these vehicles is not very good, but the mini pick-ups are widely used, especially in the city for delivery services, and offer good work performance.



The effective forecast of this segment depends on the availability of the vehicles (see point 3.5.4), and on the price range; however with these condition the market trend should be steady.

### 3.6.2 Price

The key factor of the vehicle market is the price level, both for imported or locally manufactured vehicles and for the second hand market.

A comparative price assesstment of direct APE competitors reveals an average price of around 11,000/12,000 US \$, for the van and the mini pick-up.

On the second hand market, the Renault 4F and the Japanese mini pick-up go for around 5,000 US \$, though it varies greatly due to bargaining.

The second hand market is particularly developed thanks to the good price of spare parts and the good negotiation capacity of Moroccons.

### 3.6.3 Distribution

Distribution is organized, either by private dealers like Auto-Hall, the leader of commercial vehicles, or directly by the car companies themselves.

Follows a list of the dealers of the Japanese mini pick-up:

<u>Dealer</u>	<u>Brand</u>
VOLVO	SUZUKI
VOLKSWAGEN	DAIHATSU
HONDA	HONDA

With the exception of Honda, Japanese vehicles are represented in the country by European companies, with headquarters in Casablanca, and with sales agents in major Moroccan towns.

All dealers offer high quality after sales service and also handle the second hand car market.

Dealers pay for the vehicles only of the sale is made.



### 3.6.4 Competition

With particular reference to the mini pick-up segment, the following table shows some features of the APE competitors:

Company	Model	Engine	Loading Capacity	Cabin	Wheels	Delivery Time	Other
Honda	T N 7	4 stroke	850/1.000	2-3 person	4	-	-
Suzuki	Curry	4 stroke	850/1.000	2-3 person	4	-	-
Daihatsu	S 84L	4 stroke	850/1.000	2-3 person	4	2 months	two years complete guarantee

All these vehicles are entirely manufactured abroad and imported into Morocco.

The total number of vehicles is divided as follows:

Honda	50%
Suzuki	40%
Daihatsu	10%

#### Honda

The company stopped sales in the country in 1985 and presently their vehicles are out of production. However the second hand market is particularly well developed.

#### Suzuki

The Suzuki pick-up is presently not available in the country, as retailers are awaiting the local assembly of the vehicle (planned for 1993) at the Volvo assembly line which is presently not fully utilized.

#### Daihatsu

The company offers good sales conditions. However the vehicle is expensive and there is a 2 month waiting list.

The two versions (pick-up and minivan) feature a very good loading capacity, low running and maintenance costs, and availability of spare parts.

This type of vehicle is greatly appreciated, and best suited for their needs. Preference is given to four-wheelers and Japanese vehicles.

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### 3.6.5 Forecast

In Morocco the three wheeler Piaggio is virtually unknown.

These impressions were confirmed by major auto dealers, who judged that the product would not be well accepted, and could only be marketable at a very low price around 3,500/4,000 US\$.

This price was estimated taking into account the price of second hand cars and of animal-drawn vehicles, still much in use in the countryside.

Worth consideration is the fact that in the future the APE could potentially replace old vehicles currently in circulation, having the same features.

However both consumers and dealers appear to be more interested in four wheelers, like the Japanese mini pick-up, sold at a price of around 6,000/6,500 US \$.

At this price the four wheeler could achieve good results, up to 1,000 units p.a.

However, the marketing policy for the product's introduction in Morocco should offer the same conditions as the Japanese: cheap and easily available spare parts, distribution chain, well-manufactured vehicle, low running and maintenance costs, and a warranty.

The sale in Morocco of a product manufactured in Tunisia should consider the following margins in addition to the production costs :

Transport from Tunisia	15%
Insurance on transport	5%
Margin to importer	10%
Margin to retailer	15%
V.A.T.	19%

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#### 4 MATERIALS AND INPUTS

##### 4.1 Materials

The assembly of the APE vehicles is carried out starting from hundreds of components. In Attachment 3 a complete list of components is reported together with a few sketches outlining the main parts and the assembly schemes. All these single components have to be purchased from external suppliers and then be assembled. Only a few number of finishing operations will be directly performed inside the shop. The main aim of the project is to use the highest quantity of locally manufactured components. In fact, to become an wholly exporting company, the assembled vehicles must have a 40% local content.

However this possibility has two limitations:

- a) certain parts (engine, gearbox, etc.) will have to be manufactured in Italy for technological and conveniency reasons (still existing);
- b) the real capacity of the local sub-contracting is at present rather limited.

The initial project foresaw the acquisition of components on the local market, counting for about 47 per cent of total product cost. After a closer on-site screening, carried out at the beginning of this study in collaboration with the Tunisian partner and API (the local Industrial Promotion Agency), the initial project was modified, for example, by eliminating those parts that presently could not be purchased in Tunisia (large-sized pressed drawn panels), thus lowering the integration content to 43.5%. After identifying other parts that could be manufactured in Tunisia, it has been estimated that the percentage of local supplies could reach 55% of total product cost.

The vehicle-painting is an important contribution to the local supply component. It will be carried out in the STIA shop in Sousse (the only one in the Country equipped with a painting tunnel). The costs deriving from the to-and-fro transportation of bodies to be painted at the STIA plant in Sousse are included in the contracted price for painting.

However it should be mentioned that to attain this result, quite useful to the economic plan, a rather large period of time will be necessary and PIAGGIO should envisage assisting potential local suppliers.

Said effort requires that PIAGGIO supervises the implementation activities to facilitate start-up operations and hasten local production in reaching full capacity and high quality standards.



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This will increase start-up costs but will slightly affect the firm's balance in the first year because it will be accounted in the initial investment and included in the fixed capital.

#### 4.2 Utilities and Energy

The factory will purchase electric energy from the Electric Power Public network.

The water requirement will be obtained from the public network available on the Project's site.

The electric power requirements are connected to the specific equipment use; this mainly consists of spot welding units and other equipment for mechanical working also requiring suitable electric feeding. A total power of 6000 KW has been estimated.

At present in the ISOFRIGO shop electric power is supplied by a 630 kv transformation plant, linked to the public 30,000 V distribution network. The actual electric power production does not appear to be able to meet foreseen electrical input requirements of the production equipment, however this may be easily overcome by introducing some variations.

In the shop there exists a compressed air distribution facility with a 122 l/s capacity at 7 bar pressure, fed by 2 ATLAS/COPCO compressors (one stand-by).

Drinking water flows into an open circuit without any restrictions.

In relation to the future vehicle assembly, overall technical adjustments to plant engineering have been envisaged to allow the installation and operation of specific equipment, mainly consisting of complete assembly stations (frameworks, jigs, spot welders, etc.).

Considering the above, the described plant seems to be suitable for the project.

It is estimated that if 5,000 vehicles per year are assembled at full operational capacity, no problems should arise. On the other hand, there may be problems when transferring assembled bodies to the STIA plant in Sousse for painting. This will probably require paint touch-ups at the plant in Tunis and naturally good management logistics with regards to the to-and-fro movement from Tunis to Sousse and viceversa.

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## 5 LOCATION AND SITE

At present SAT is importing APE CKD components from the Italian factory of PIAGGIO; assembly and body painting are performed at the STIA plant located in Sousse, some 150 km south-east of Tunis. The plant has been designed and once used to assemble CKD kits of the PSA Group vehicles. This activity was interrupted for economical reasons and was replaced with the assembly line of Renault and Volvo trucks.

The first site to be considered for the new plant location has been obviously the same STIA shop in which the present SAT lines could be easily expanded. This plant is the only one in Tunisia equipped with a painting tunnel (the same used for the PSA car finishing). Furthermore, due to the present reduced production, additional space is available for any expansion of the production lines.

However this option has not been confirmed and the industrial park of Tunis has been preferred.

This choice has been influenced by the possibility of having better productivity conditions and being close to main final market.

For many years the STIA shop has been running at very low productivity rates in respect to plant size and capacity. Manpower has been reduced but an overdimensioning is still existing with direct consequences on productive organisation.

It should be very difficult to have within the same production facility two distinct teams working with very different organizational schemes and productivity conditions.

A separate shop has been considered more appropriate.

Among the various site alternatives, the industrial park of Tunis seemed to be the most suitable given the excellent access infrastructures and existing utilities (water, electricity)

In addition Tunis represents the most important market for APE sales. Hence the proposed plant in Tunis is rightly located close to production, commercial and technical assistance structures.

The prospect of building new structures was excluded, given the availability of plant facilities in this park (for sale or rent).



The plant facility opted for presently belongs to ISOFRIGO, which is moving elsewhere and is therefore willing to sell or rent the plant. As reported by the partners, it will be purchased by the Tunisian partner and rented to the joint-venture.

The building has a 11 m high bearing steel structure with an area of 3,000 sq.m.. It is divided into two 60 m. spans by a central row of columns; the lack of partitions assures good plant flexibility.

The total available area of the industrial factory is approximately 18,000 sq.m. with a total available covered area of 5,700 sq.m.. An adjacent area of approximately 5,000 sq.m. could be purchased, after which there do not seem to exist other expansion possibilities in the near future. The covered area of 2,100 sq.m. adjacent to the main building is used for offices and warehouses; on the first floor there are an additional 600 sq.m. for office use.

The non-built area accounts for about 12,000 sq.m. and shall have to be used for the construction of warehouses for the storage of components and finished products.

The total available area is sufficient to assure a good internal circulation of materials and products, taking into account foreseen production output.

Overall plant activity is presently limited to the availability of electric power supplied by a 630 kv transformation plant, linked to the 30,000 V state-owned industrial energy distribution network. The actual electric power production does not appear to be able to meet foreseen electrical input requirements of the production equipment, however this may be easily overcome by introducing some variations.

There exists a compressed air distribution facility with a 122 l/s capacity at 7 bar pressure, fed by 2 ATLAS/COPCO compressors (one stand-by).

Drinking water flows into an open circuit without any restrictions.

If this plant is chosen for vehicle assembly, overall technical adjustments to plant engineering will have to be envisaged, as well as the organisation and installation of specific equipment, mainly consisting of spot welders, equipped with specifically designed clamps and electrodes which could initially be supplied by Piaggio.

Considering the above, the described plant seems to be suitable for the project.



## 6 PROJECT ENGINEERING

### 6.1 Scope of the Project

The main objective of the Project is to build-up a factory for the production of Three wheeler vehicles in Tunisia.

The factory will be located in the industrial park of Tunis.

Within the battery limits of the factory all the facilities required for the production and operation will be installed, namely:

- Assembly plant machinery and equipment
- Production utilities and distribution equipment
- Offices, laboratories and warehouses
- Other services facilities such as roads and parking areas, entrance guard and fencing, etc.

The production process will be based on the know-how developed by the Italian Promoter, PIAGGIO V.E, who will also carry out the basic design and provide procurement services for the imported equipment.

The production capacity of the plant is estimated to be 5.000 vehicles/year. This value could be easily surpassed by increasing manpower and adopting an additional working shift.

The Tunisian Promoter - owner, among others, of the industrial building - will collaborate to supervise the implementation activities (civil works rehabilitation, supply and construction of locally available equipment).

Raw materials and other production inputs will be purchased in Italy and Tunisia. The acquisition of components and materials on the local market should be over 40 % of the vehicle cost.

Details on the technology, technology and engineering costs, equipment costs and civil engineering works are included in the following paragraphs.



## 6.2 Technology

The three-wheeler APE is being manufactured at the plant of Pontedera and the latest models APE 501 and APE 601 have reached peak levels of technological saturation with respect to product's end use and market demand. Besides a long-experimented production technology, there is the advantage that the required know-how can be readily transferred.

Moreover Piaggio boasts a significant experience in the setting-up of plant facilities abroad under licence, consequently oriented to establishing joint-venture operations with local partners.

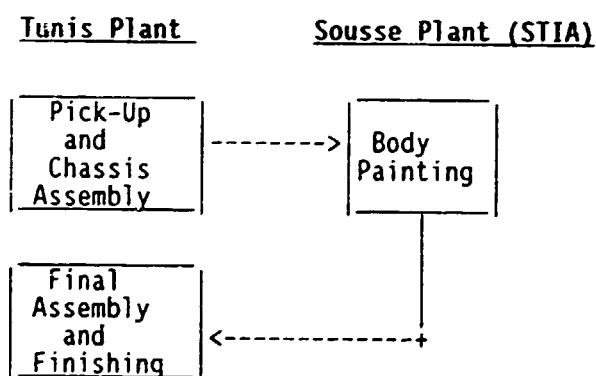
From this standpoint the envisaged joint-venture with SAT of Tunisia, already a commercial partner of Piaggio, does not present difficulties in organising and transferring technical and technological equipment and know-how, in order to adequately equip the plant and provide the necessary support to start-up operations.

Production activity to be carried out in the plant of Tunis shall consist of:

- complete assembly of pick-up and chassis (welding) by using press-drawn parts, either sourced from Italy or locally made.
- final assembly of the vehicle and paint finishing
- testing and release of vehicles.

The painting of assembled vehicle bodies will be performed after the second step in the Sousse factory in the same plant designed for the PSA vehicle painting.

The three steps are outlined in following scheme:





The production organization is particularly important. All components and materials have to be stored inside or outside the factory. Appropriate areas for storage should be envisaged. An additional covered area of 600 sq.m. should be sufficient.

### 6.3 Technology and Engineering Costs

The production technology will be provided by the Italian promoter PIAGGIO. In particular the following issues will represent its specific contribution:

- design of specific plants and production means;
- erection and start-up of the plant;
- production know-how transfer: personnel training - technical assistance - quality assurance and quality control procedures

Technical management of the production unit as well as the executive management of the whole joint-venture will be assured by PIAGGIO personnel.

The cost of the plant design has been included in the purchasing value.

The erection, start-up and technological transfer has been estimated in 395 million of Italian lire (316.000 US\$).

The cost of technical management will be accounted for on the joint-venture's yearly balances (98 million lire eq. to 125.000 US\$).

### 6.4 Equipment

The plant machinery and equipment required for the project has been assessed considering Piaggio's production assets in the Pontedera plant. A few modifications have been decided according to the different production conditions of the Tunis shop, but the type of equipment is basically the same of the Italian plant.

The main equipment list and relevant general specifications are indicated hereinafter, for the different sections of the project:



## PRODUCTION EQUIPMENT

### - Welding section

n. 43 of spot-welding units: the spot welders will be equipped with specifically designed clamps and electrodes which could initially be supplied by Piaggio.

### - Assembly section

n. some dozen sets of jigs & fixtures for component positioning and assembling

## AUXILIARY EQUIPMENT

Pressing moulds: these will remain in the Italian or Tunisian factories in which pressing operations will be performed according to production programmes.

Miscellaneous: current mechanical equipment for metal working and assembling

## 6.5 Civil Engineering Costs

The industrial complex, selected for the joint-venture production activity, is the former ISOFRIGO shop. It includes an industrial building (3,000 sq.m. covered area). Adjacent to the main building is another covered area of about 1,500 sq.m., used for warehouses and offices (ground floor) plus an additional 600 sq.m. (first floor) for office use. The unbuilt area surrounding the above described structures is equivalent to approximately 12,000 sq.m.

There is also another small portion of 5000 sq.m. with a 2-meter high wall enclosure, already proposed for the construction of a 60x20x11 m edifice.

Up to date this industrial complex has been used for the assembly of refrigerating plants. The building structures require only a limited restructuring; the lay-out relevant to the production activity of the APE 501 and the APE 601 have to be adapted to this structure, hence plant facilities have to be redesigned.

The former ISOFRIGO factory will be purchased (the estimated value is 2.000 million It. lire - 1.6 million US\$) by the Tunisian sponsor and then rented to the joint-venture (70 million It lire/year - 56,000/year US\$).



The engineering cost of building restructuring and general plants design are very limited and included in the general plants cost (about 10 % of the total eq. to 150 million It. lire - 120,000 US\$).





## 7 PLANT ORGANISATION AND OVERHEAD COSTS

### 7.1 Implementation phase

The Tunisian Promoter will be fully involved in the Project implementation phase, in order to follow the activities, finalize all the formalities and obtain permits required to start production.

Even if a final decision on "how to implement" the Project has not been reached yet, the most probable schedule is the following:

- a. The Italian sponsor will carry out the basic design and will provide the general specifications required for civil works and detailed production engineering.
- b. The Tunisian and the Italian sponsors will select a local engineering and construction Firm to perform the detailed engineering and to act as Main Contractor for the implementation of the Project.
- c. The Tunisian and the Italian sponsors will supervise the activities of the Main Contractor during the Plant construction Phase and will follow the research to select, test and eventually support or train the local suppliers with the aim to have a suitable quality at the beginning of the production phase.

The construction and erection cost of machinery and equipment has been included in the estimate of investment cost tables, as well as the construction costs of civil works.

### 7.2 Production phase

For the Production Phase of the Project the following expenses have been taken into account:

- Parts from PIAGGIO
- Parts from Tunisian suppliers
- Painting by STIA
- Rejections (mat.)
- Consumables
- Power & Fuel
- Maintenance and Repairs - External Services
- Administration (non Labour costs)
- Marketing (non Labour costs)
- Administration (Warranty)
- Leasing of pressing dies
- Land & Buildings hire



The relevant estimates, with particular reference to the first years of operation, have been based on PIAGGIO's direct experience in producing the same vehicles. Parameters have been taken with reference to the Pontedera industrial accounting system and adapted to the local conditions. Energy, water and labour costs have been re-estimated on the basis of industrial production parameters (reported in API special issues or gathered among Tunisian enterprises). A specific analysis has been carried out for the following:

\* **Parts from PIAGGIO**

Several vehicle parts will be supplied by PIAGGIO including the engine and the suspension systems. Deep drawn parts and large drawn parts (front and rear panels, pick-up panels, etc.) as well as other small parts with a higher technology content are also included. This group of components corresponds to about 55 % of the total vehicle cost. A second classification will be prepared after the evaluation of several Tunisian supply offers (collection under way). It is estimated that the above mentioned percentage could be lowered to 45 % after a period of suitable assistance to the local suppliers.

\* **Parts from Tunisian Suppliers**

At first PIAGGIO estimated local integration on overall vehicle cost to be about 45 %.

As above mentioned a second evaluation is under way which probably will allow an extension of this parameter to 55 %.

The cost of each supplied component has been considered equivalent to the one of the correspondent Italian supplier. Most probably this assumption will be confirmed by the evaluation under completion. If on one hand the Tunisian labour-cost is lower than the Italian one, on the other hand productivity is also lower.

As far as the body painting performed at STIA is concerned, a specific price proposal of this company has been considered. The transportation cost (Tunis-Sousse-Tunis) has been calculated considering the use of trucks with trailers transporting 12 APE vehicles.

The variable industrial cost values per vehicle are summarized in the following:



It.Lire x 1,000

Parts from PIAGGIO	2.188	(for Tunisian Market)
Parts from Tunisian suppliers	615	
Painting by STIA	449	
Rejections (mat.)	4	
Consumables	19	
Power & Fuel	59	
Maintenance and Repairs	7	
External Services	5	
Administration (Warranty)	12	

The other operational fixed costs have been determined as in the following:

\* **Administration and Marketing**

Management will be handled by a PiAGGIO representative aided by 15 administrative staff. A total cost of 262 million It. lire has been accounted for (210,000 US\$).  
A yearly cost of about 300 million It. lire has been considered for marketing expenses (240,000 US\$).

\* **Leasing of pressing dies - Land & Building Rent**

The land and building cost of the factory has been fixed at 70 million It lire (56,000 US\$) corresponding to 3.5 % of the current building value. A decreasing cost of dies leasing has been foreseen in the first 5 years, according to the following plan.

Years	1	2	3	4	5
Land & Build	70	70	70	70	70
Dies Leasing	<u>125</u>	<u>125</u>	<u>80</u>	<u>80</u>	<u>80</u>
	195	195	150	150	150



## 8 MANPOWER

The Project will employ 120 units for the different activities of the Factory, according to the following scheme:

	<u>1st Year</u>	<u>2nd Year</u>	<u>3rd Year</u>	<u>4th Year</u>	<u>5thYear</u>
<u>Direct Workers</u>					
Welding of Chassis & Components	2	30	39	39	41
Vehicle Final Assembly & Test	8	36	47	47	50
	-----	-----	-----	-----	-----
	10	66	86	86	91
<u>Indirect workers</u>	3	29	29	29	29
	-----	-----	-----	-----	-----
<b>TOTAL DIRECT+INDIRECT (on shift)</b>	<b>18</b>	<b>95</b>	<b>115</b>	<b>115</b>	<b>120</b>

The Factory management will be provided PIAGGIO, while the remaining staff and production manpower will be recruited directly by the Company.

In the area of the selected location, there is the availability of skilled labour, as well as of clerical staff and graduates, who can be adequately trained in the particular field of mechanical assembly.

The training of the production personnel will be provided by the Italian Sponsor during the implementation phase. Specific training will also be carried out under the supervision PIAGGIO's technicians at the start-up and during the first period of operation.

The relevant cost is included in the Pre-production Costs (for the expenses in local currency).

The Labour Cost has been calculated on the basis of the average yearly cost for the different categories, including gross salary, social costs, payroll taxes and other expenses to be paid by the Company.



## 9 IMPLEMENTATION SCHEDULING

### 9.1 Investment Scheduling

Project implementation will require an estimated 6-month period of time, including plant commissioning and performance tests.

During said period all the initial investments will be realized and the required financial sources should be activated. The Total Investment Cost of the project is summarized in Table 9.1.

The implementation phase has been divided into five periods as in the following table:

- 1) PIAGGIO-SAT J.V.  
Feasibility Study
- 2) Technical Docum.  
Preparation
- 3) Local Supplying
  - \* Local Suppl. Selec.
  - \* Test of Components
  - \* Suppliers homolog.
  - \* Tech. Resolution/  
Vehicle test
  - \* Tech. Assist. local suppl.
- 4) Production Means Instal.
- 5) Production Means Start-up.

The periods 2-4-5 will last 6 months and the corresponding operations will be carried out simultaneously. The third period will be completed 6 months later with the final technical assistance phase to local suppliers. In fact the integration with Tunisian suppliers will be developed progressively and will be completed 6 months after the production start-up. During this period components will be imported from Italian suppliers.

#### INVESTMENT ITEMS vs COMFAR INPUT

Investment Item	Amount (M It. Lire)	COMFAR Input	
		Heading Voice	Line no.
Building rehabilit.	190	Land	13
General Plants	1.445	Structures & civil	15
Prod. & Aux. Equip.	4.296	Plant Mach. & Equip.	8,20
Erection	550	Incorp. Fixed Ass.	17
Start-up Cost	395	Incorp. Fixed Ass.	6,18
	-----		
	6.876		



TABLE 9.1 SUMMARY OF THE INVESTMENT COST

	Italian L. (million)	Tunisian Din. (thousand)	TOTAL	
			Italian L. (million)	US \$ (thousand)
<b>1. Civil works</b>				
* Building rehab.		99		
* Storage rehab.		<u>42</u>		
		141	190	152
<b>2. Mach. and Equip.</b>				
* Hanging welding units	196			
* Fixed welding units	225			
* Arc welding units	95			
* Roll welding units	90			
* Finishing box	5			
* Weld. auxiliary equip.	920			
* Miscellaneous	<u>40</u>			
	1.571		1.571	1.257
<b>3. General Services</b>				
* Air Compress. Station	170			
* Weld. Un. Cooling System	200			
* Oxygen + Acetylene	30			
* Oil tanks	30			
* Water network	35			
* Heating Plant	50			
* Off. Heat/Conditioning	30			
* Heating Network	100			
* En., Ligth., Tel. Netw.	750			
* Fire fighting system	<u>50</u>			
	1.445		1.445	1.156
<b>4. Moulds</b>				
* Moulds for steel	750			
* Moulds for plastic	<u>1.600</u>			
	2.350		2.350	1.880
<b>5. Miscellaneous</b>				
	375		375	300
<b>6. Erection</b>				
		407	550	440
<b>7. Start-up expenses</b>				
		292	395	316
		<u>840</u>	<u>6.876</u>	<u>5.501</u>



## 10 FINANCIAL AND ECONOMIC EVALUATION

### 10.1 Investment Plan

The partners foresee a construction period of less than one year. This time-frame is realistic considering that the site and the main building already exist and will be rented.

In the financial analysis the following hypothesis has been made:

- 30% of the investment in the second semester of 1992;
- 70% of the investment in the first semester of 1993.

The total investment is 6,876 million Lit (Italian Liras, equal to 5.5 million US\$ with 1 US\$ = 1,250 Lit). This amount does not include the net working capital.

The break-down of the investment costs is the following:

(thousands Lit)	1992 2.semester	1993 1.semester	Total
Buildings/civil works	57,000	133,000	190,000
Incorporated fixed assets	830,000	1,936,000	2,765,000
Plant equipments	1,176,000	2,745,000	3,921,000
Pre-production expenditures	23,000	0	23,000
Total	2,086,169	4,814,000	6,900,000

Civil and engineering works are needed to adapt the rented space to the assembly line. They include a warehouse construction and other support facilities. The full amount is in local currency.

The incorporated fixed assets are the machineries and equipments supporting the assembly line such as air compressing system and other facilities. Plant equipment specifically refer to the assembly line and include several machineries.

The pre-production capital expenditures represent interest payments on the long-term loan during the construction period.

The hypothesis of days of minimum coverage to compute working capital requirements are in the COMFAR schedules in Attachment. The minimum coverage for inventory of raw materials can be estimated to be 30 days considering the short distance from Livorno, the Italian port, and Tunis and the good port facilities of the latter.



The resulting net working capital is 2,915 million Lit (1.4 million US\$), spread over five years. It is a significant amount equal to almost 50% of fixed investments. The assembly activity of semi-finished components explains this high percentage. In fact the low volume of products imposes to the suppliers to reduce the production of main parts in few batches each year. This means a significant inventory of raw materials (in the case of pre-transformed parts) and semifinished components.

## 10.2 Source of Finance

The partners have estimated an investment cost of 6,876 million Lit. On the contrary this amount only represents the fixed investments. If loan interest payments during construction and the working capital requirements in the first year of operation are included, the total capital outlay for the proposed project rises to 7,571 million Lit.

The source of finance envisaged by the partners are 4,000 million Lit of equity and 3,376 million in long term debt. The rest would be covered by short term financing. The long-term debt has to be covered by suitable guarantees. The company's assets have a low cautionary value (plant and equipment usually are not accepted as guarantee). For this reason, additional share-holder guarantees have to be submitted by the sponsors to the financial institutions, in order to obtain access to credit. This goes beyond the objective of this study, but suitable negotiations should be activated with Banks during the implementation phase.

Two different scenarios have been appraised with COMFAR.

**Scenario 1 (Sponsor's proposal):** the above-mentioned sponsors' proposal finances all plant equipments and incorporated fixed assets with permanent capitals. The financing conditions are those of Tunisian commercial banks for loans in US \$, i.e. 11% interest rate, an 8-year repayment schedule with 2 year grace period for long term debt and 14% interest rate for overdraft.

**Scenario 2:** PIAGGIO would apply for a soft loan through the Italian Cooperation Fund to Tunisia. The financing conditions of the long-term loan are an interest rate of 4.75% (excluding the foreign exchange risk), a 10-year repayment schedule with 4-year grace period. The overdraft interest remains at 14%.





### 10.3 Total Production Costs

As computed by COMFAR, the total production costs will amount to over 18,000 million Lit (14.4 million US\$) from 1997 when full production capacity is reached. The COMFAR schedules in Attachment give details of these costs.

The reported raw materials are actually parts and components imported from Piaggio or obtained from local suppliers. The partners have established preliminary contacts with local suppliers in order to reach from the outset a minimum of 40% of local content. This threshold is required to commercialize the three-wheelers in the Maghreb area benefiting of reduced import taxes. Also included in the raw materials are the painting of components sub-contracted to STIA 2, a local company.

The PIAGGIO's moulds used for the pressing of large panels will be leased to the joint venture. The proposed leasing plan (125 million Liras for the first two years and 80 million Liras for the remaining period) can be considered acceptable.

COMFAR has computed the annual depreciation at 400 million Lit based on a depreciation time frame of 15 years for the assembly line and 20 years for incorporated fixed assets and for civil works.

### 10.4 Sales Revenues and Net Income Statement

As explained in Chapter 3, the joint-venture will assemble two models of APE Piaggio, i.e. MP601 and MP501. In the financial evaluation four products have been considered to distinguish the alternative commercialization policies devised to penetrate different markets.

The MP601 will be sold in Tunisia, in the Maghreb area and in other African countries. Piaggio will buy back the MP501. In the following table the foreseen sale programme is reported:



(years)	1	2	3	4	5
<u>Sales Quantity (n.)</u>					
Tunisia	200	450	600	700	700
Algeria	50	400	500	800	1000
Morocco	80	500	850	920	1000
Lybia	30	300	600	650	700
Mauritania	0	50	70	80	100
Other Africa	0	400	750	1250	1500
Italy	500	1650	1500	500	0
Spare parts (1)	40	180	240	245	250
TOTAL	900	3.930	5.110	5.145	5.250

(1) Spare parts have been accounted as vehicle quotas

Different costs allocation and price policy have been decided according to PIAGGIO's accounting system. The following table summarizes the different Gross Contribution per unit.

(million Lit)	Variable Costs per unit*	Ex-work price per unit	Gross Contribution per unit
a. APE MP601 for Tunisia	3.358	4.319	0.960
b. APE MP601 for Maghreb	3.076	4.259	1.183
c. APE MP601 for other Africa	3.076	3.500	0.409
d. APE MP501 for Italy	2.706	2.709	0.000
e. SPARE PARTS	3.076	5.962	2.886

\* Labour costs are not included

Gross sales revenues are 21,666 million Lit (17,3 million US\$) at full production capacity of 5,000 units per year. In terms of foreign currency earning, only the units exported outside the Maghreb

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area produce a net inflow. In fact sales of local products within Maghreb are settled in local currency on the basis of trade compensation agreements among member countries.

In Scenario 1, the net income statement shows a gross loss in 1993 of 1,491 million Lit. The fixed costs component represents a heavy burden in 1993, the first year of operation with a capacity utilization of only 17.1%. In 1993 the resulting operating margin is negative.

The first gross profit is in 1994. In 1997, the fifth year of operation, the gross profit rises to over 3.500 million Lit. equal to 15% of total sales. The profit peaks only in 2001 where it is 17.4% of total sales. The main reason for this slow performance is that the project requires a relatively long period to attain full production capacity, namely five years. In 1993, first year of production, only 17.1% of the final production level is reached. This is due not to technical problems but to the need to establish a well-spread commercial network in the Maghreb.

In Scenario 2 the cost of finance is reduced with a quicker time frame of profit making. In absolute terms the yearly profitability of the joint-venture has not been significantly modified because the tax imposition (35% of gross profit) has practically absorbed the resulting margin.

#### 10.5 Cash Flow Tables and Projected Balance Sheet

The COMFAR cash-flow tables show that the project in Scenario 1 maintains a positive cumulated cash balance in each year, assuring a continuous operation program.

It should be, nevertheless, noticed that there is a constant cash deficit of foreign currency for the all project life. This deficit is more than offset by the cash surplus of local currency. In the event of local currency devaluation or imposed exchange restrictions, such cash structure could reduce the financial resources of the joint-venture.

Taking in consideration the cumulated net cash-flow (defined as net profit plus financial costs and depreciation), the project pay-back period is 5 years. This confirms the slow operational performance of the project.

In the projected balance sheet the dependence of the joint-venture on short term financing is at its peak in 1994 with an overdraft exposure of 2.433 million Lit. can be observed. If bank overdraft and current liabilities are summed up, they represent 42% of total liabilities in 1994.



The new financial scheme in Scenario 2 reduces the project's reliance on short term financing. The overdraft is reduced to 2,317 million Lit from 3,359 million in Scenario 1 with a better distribution of total liabilities between short and long term components is therefore achieved.

#### 10.6 Financial Ratios and Project Profitability

The total invested capital outlay is 6,900 million Lit. The equity is 4,000 million Lit., resulting in a satisfactory equity/total/debt ratio of 0.45 in the most critical year (1994).

From COMFAR cash-flow tables the debt service coverage ratio can be computed, i.e. the capability of the joint-venture to generate enough cash before tax to service repayment of principals and interests.

In Scenario 1 in 1996, the fourth year of production, the ratio is only 1.33. In 1997, first year of full capacity utilization, the ratio reaches a satisfactory value of 3.16.

In 1994, the ratio of current assets to current liabilities is 1.71 but falls down to 0.95 if the bank overdraft is included in the liabilities. In 1996, when the overdraft disappears, the ratio improves to a satisfactory 1.85.

All these liquidity ratios point to the risk that, in case of a fall in cash generation in the start-up period, the project could not meet the debt obligations from its own resources.

The break-even point of the project is reached with 50% of the production capacity in 1997. This low percentage is a sign of good operational performance of the project once it has reached full production capacity.

In terms of project profitability, COMFAR has computed the following values for Scenario 1 :

IRR (Internal Rate of Return on Total Investment)	23.2%
NPV (Net Present Value on Total Investment at 16%)	3.500 million Lit
IRR1 (Internal Rate of Return on Equity)	28.55%
NPV1 (Net Present Value on equity at 16%)	4,000 million Lit

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From a strictly industrial point of view, these results appear quite good for an assembly activity. Besides the IRR of the project is higher than the current international financial interests in Tunisia making the joint-venture attracting to partners.

Scenario 2 improves the liquidity of the joint-venture. The first significant cash surplus is reached in 1996, one year before than in Scenario 1. The ratio of current assets to current liabilities (including in the latter the bank overdraft) improves and reaches a value of 1,03 already in 1994. It is 2.20 in 1996. The new financial scheme also reduce the risk that the joint-venture could not meet its debt service obligations.

Scenario 2 has the following cash-flow discounting results:

IRR (Internal Rate of Return on Total Investment)	23.04%
NPV (Net Present Value on Total Investment at 16%)	3,400 million Lit
IRRI (Internal Rate of Return on Equity)	31.35%
NPVI (Net Present Value on equity at 16%)	4,600 million Lit

#### 10.7 Sensitivity Analysis

The influence of two kinds of variables have been evaluated:

- The integration degree of local supplier<sup>1</sup> A 45% integration has been considered to be realistic. Further evaluations pointed out the possibility of raising this value up to 55%. However in the base-case a 40% value has been assumed.
- The ratio between the average cost of components locally supplied and the same ones purchased in Italy. In the base-case this ratio has been assumed equal to 1. Considering that the base shows a sufficiently high IRR (IRR = 23.2%), ratios inferior to 1 have been calculated. On the contrary only a coefficient of 1.2 has been applied to the Tunisian suppliers in all three hypotheses of integration degrees.

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<sup>1</sup>The value of components locally supplied with respect to the whole vehicle cost.

5

Tun.Suppliers Cost Ita.Suppliers Cost	Degree of integration (%)		
	45	50	55
1	23,20	23,20	23,20
--> 1,20	17,50	16,70	15,90
1,40	11,40	9,20	7,20

The results obtained show that when local integration is high, an IRR of 12% (just at the limit of acceptability) with cost ratios higher than 1.5.

Maintaining the degree of integration at 40% (the minimum required for the tax exemption is the Maghreb area), the IRR still remains acceptable also for 1.5 cost ratio.

Given the positive effect on project currency balance of high degrees of integration, it is demonstrated that the Tunisian suppliers cost should not exceed 1.2/1.3 times the Italian one to maintain reasonable profitability.



## II PROJECT PROMOTERS

### II.1 The Italian Sponsor

PIAGGIO is an Italian industrial company well-known world-wide as manufacturer of scooters and is leader in the sector of transportation three wheeler vehicles.

PIAGGIO has a long history of innovation and industrial records; "Vespa" - the first scooter - was designed on the basis of aeronautical know-how and technology about half a century ago. Aeronautical production still remains an important branch of PIAGGIO Group activity.

After the VESPA (still in production), the three wheeler vehicles (APE) gained a large success on the Italian market during the '60s. These vehicles have also been appreciated in other countries, especially on the Asian continent. In India they are very popular as taxi cabs.

APE vehicles have been in production during the '70s and '80s in Pontedera main factory, reaching a rate of 30.000 units/year.

The company has a large experience on foreign markets. Collaboration agreements have been established in India, Indonesia and many other countries for vehicle production and distribution.

At present PIAGGIO Group property is shared among Piaggio family members, Fiat owners and other private partners.

The company's management is dynamically transforming PIAGGIO's line of activity. Scooter production has been boosted with new models, (recently launched the SFERA Scooter) to counterbalance the Japanese penetration on world markets. At the same time collaboration agreements have been established with a Japanese firm for the production and distribution of transportation vehicles.

The Joint-venture project in Tunisia is part of a far-seeing strategical plan to penetrate the North African market.

The economic and financial performance during the last two years is positive as demonstrated by the following tables:



PIAGGIO (Values in billions of Italian Liras)

<u>ASSETS</u>			<u>LIABILITIES</u>		
	<u>1989</u>	<u>1990</u>		<u>1989</u>	<u>1990</u>
Net Fixed Assets	147	144	Equity	97	137
Shares	50	59	Reserves	14	8
Current Assests	357	437	Net Profit	---	---
	---	---	Net Capital	111	160
	554	640	Debts	46	58
			Long-term Liab.	126	139
			Current Liab.	271	283
				---	---
				554	640
Turn-Over	777	874			
Net Profit	14,30	15,30			

11.2 The Tunisian Sponsor

SAT (Société d'Automobiles Triporteurs) is PIAGGIO's partner for the APE vehicles distribution in Tunisia since ... This company is a member of the STA HOLDING, a group of firms established by the owner Mr. Sta. The structure of this holding is represented in the following table:

STA HOLDING COMPANIES

- |                           |   |
|---------------------------|---|
| - GCN - Gr.Carrieres Nord | Mining production (8.000 t/day)             |
| - MAGHREB TRANSPORT       | National and International transp.(trucks)  |
| - SAT (Soc.Aut.Triport.)  | Three wheeler vehicles assembling and trade |
| - JUGURTHA MANUTENTION    | Maintenance, after sale service for SAT     |
| - SIG (Syst.Inf.Gest.)    | Computer Systems trading                    |
| - TECHNICALIM             | Air conditioners and home heaters trading   |
| - NAFRINVEST (N.Afr.Inv.) | Agro-industry Studies and Consulting        |
| - JUGURTHA STUDIES        | Industrial Engineering                      |
| - PROMOTOURISME           | Tourism Promotion                           |
| - MEDASIA (Med./AsianCo.) | International Trade                         |
| - JUGURTHA Trad.Shipp.Co  | International Shipping                      |
| - META (Magh.Electr.Aut.) | Electric Equipment Trading                  |
| - TUNISIE IMMOBILIERE     | Land and Building sale and acquisition      |





Other activities of the STA HOLDING include hotel trading (Hotel El KSAR in Sousse), agro-industry (oil refineries) and agriculture.

The economical and financial situation of the Group has not been investigated as no consolidated financial statement has been prepared. The group employs globally about 1,500 people. The specific data regarding SAT are reported in the table at the end of the paragraph.

The Tunisian partner is interested in developing the Group's activity in the industrial field. The Group's primary activity is well represented (mining, agriculture), as well as the service one (transportation, trade and engineering). The development of an industrial branch is consequently a factor of equilibrium and is on line with the present industrial development of Tunisia.

This could explain the high investment that the owner is going to finance directly or indirectly (65 % of the joint venture equity plus 2 million US \$ for the industrial building acquisition). On the other hand the Group will receive an important technological and production know-how.

SAT (Values in millions of Italian liras)

<u>ASSETS</u>				<u>LIABILITIES</u>	
	<u>1989</u>	<u>1990</u>		<u>1989</u>	<u>1990</u>
Net Fixed Assets	170	119	Equity	195	195
Inventory	443	79	Reserves	88	92
Current Assets	186	487	Net Capital	283	287
	799	685	Debts	512	398
			Net Profit	4	
				799	685
Turn-Over	385	448			
Operative Margin	105	49			
Net Profit	6	5			

ATTACHMENT 1  
COMFAR TABLES - SCENARIO 1



Report of the Board of Directors for the year ended 1968

Assets of the Corporation  
 1968 1967  
 Assets

Fixed Assets 1968 1967  
 Land 1968 1967  
 Buildings 1968 1967  
 Equipment 1968 1967  
 Other 1968 1967

Total initial investment 1968 1967  
 1968 1967  
 1968 1967  
 1968 1967

Source of funds from operations

Assets 1968 1967  
 Liabilities 1968 1967  
 Equity 1968 1967  
 Total 1968 1967

Cashflow from operations

Year	1968	1967
Operating cash	1000000	1000000
Investing cash	1000000	1000000
Financing cash	1000000	1000000
Total cash	3000000	3000000
Operating cash	1000000	1000000
Investing cash	1000000	1000000
Financing cash	1000000	1000000
Total cash	3000000	3000000
Operating cash	1000000	1000000
Investing cash	1000000	1000000
Financing cash	1000000	1000000
Total cash	3000000	3000000

Cash balance : 20.00 32.00 1129.00  
 Net investment : -888697.00 -162403.00 8221202.00

Net Present Value @ 16.00 % = 1405475.00  
 Internal Rate of Return = 23.00 %  
 Return on Equity = 23.00 %  
 Return on Assets = 27.00 %

Index of Schedules included in Form

Total Initial Investment	Cashflow Table
Total Investment during production	Projected Balance
Total production costs	Net Income Statement
Working Capital requirements	Source of Finance



COMFAR  
S.A. 1960

----- (MARK 2) - FIBRE CONSULTING, S.P.A. 1961 -----

Total Initial Investment in Tunisia (in millions)

	1962	1963
Fixed investment costs		
Land site preparation, development	0.000	3.000
Buildings and civil works	0.000	5000.000
Buildings and service facilities	0.000	0.000
Decorated fixed assets	0.000	82500.000
Plant machinery and equipment	0.000	117000.000
Total fixed investment costs	0.000	200500.000
Pre-production capital expenditures	0.000	2204.000
Net working capital	0.000	0.000
Total initial investment costs	0.000	202704.000
Of it foreign, in %	0.000	69.338

----- Joint-venture FIABOIS/SAT in Tunisia ---- 13.4.1992



COMFAR 1961 - FINANCIAL STATEMENTS, 1955, 1956, 1957

Total Current Investment in Tunisia (in thousands)

	1955	1956	1957	1958	1959
Fixed investment costs:					
Land, site preparation, development	0.000	0.000	0.000	0.000	0.000
Buildings and civil works	102,975.000	0.000	0.000	0.000	0.000
Furniture and service facilities	0.000	0.000	0.000	0.000	0.000
Incorporated fixed assets	157,000.000	0.000	0.000	0.000	0.000
Plant, machinery and equipment	274,875.000	0.000	0.000	0.000	0.000
Total fixed investment costs	481,315.000	0.000	0.000	0.000	0.000
Reproduction capital expenditures:					
Working capital	71,975.000	143,001.000	59,006.000	73,752.850	78,419.000
Total current investment costs	453,290.000	143,001.000	59,006.000	73,752.850	78,419.000
Of it foreign	66,196	65,574	50,321	68,103	74,638

Joint-venture FIAGSIO/SAT in Tunisia --- 13.4.1962



COMPAR 201 - FILINT CONSULTING, PAVELI, TUNISIA

Net Working Capital - July 1968

	1967	1968	1969	1970	1971	1972
Net Working Capital	100	100	100	100	100	100
Current Assets						
Accounts receivable	100,000.00	100,000.00	100,000.00	100,000.00	100,000.00	100,000.00
Inventories and supplies	20,000.00	20,000.00	20,000.00	20,000.00	20,000.00	20,000.00
Equipment	10,000.00	10,000.00	10,000.00	10,000.00	10,000.00	10,000.00
Prepaid expenses	5,000.00	5,000.00	5,000.00	5,000.00	5,000.00	5,000.00
Other current assets	10,000.00	10,000.00	10,000.00	10,000.00	10,000.00	10,000.00
Total current assets	145,000.00	145,000.00	145,000.00	145,000.00	145,000.00	145,000.00
Current liabilities and accounts payable	45,000.00	45,000.00	45,000.00	45,000.00	45,000.00	45,000.00
Net working capital	100,000.00	100,000.00	100,000.00	100,000.00	100,000.00	100,000.00
Increase in working capital	0.00	0.00	0.00	0.00	0.00	0.00
Net working capital, local	100,000.00	100,000.00	100,000.00	100,000.00	100,000.00	100,000.00
Net working capital, foreign	0.00	0.00	0.00	0.00	0.00	0.00

Notes: 1. Net working capital is expressed in Tunisian Dinar.

Joint-venture FINECOTUNISIA - Tunisia - 15.4.1972



COMFAR - COMMISSARIAT NATIONAL DE L'ÉQUIPEMENT ET DE L'ÉNERGIE

Source of Finance, construction of (in millions of Tunisian dinars)

	1971	1972
Equity	0.00	0.00
Loans	0.00	0.00
Grants	0.00	0.00
Total	0.00	0.00
Loans A, foreign	0.00	0.00
Loans B, foreign	0.00	0.00
Loans C, foreign	0.00	0.00
Loans D, local	0.00	0.00
Loans E, local	0.00	0.00
Loans F, local	0.00	0.00
Total loans	0.00	0.00
Current liabilities	0.00	0.00
Total current	0.00	0.00
Total funds	0.00	0.00

Joint-venture PIAGGIO/SAT in Tunisia --- 13.4.1992







1953-54 - PRODUCTION COSTS - 1953-54

Total Production Costs - Individual Crops

	1953	1954	1955	1956	1957	1958	1959
FACTORY COSTS	248223.60	153819.30	151240.00	167220.00	167220.00	167220.00	167220.00
ADMINISTRATIVE EXPENSES	403011.00	433011.00	403011.00	403011.00	403011.00	403011.00	403011.00
FIELD COSTS, SALES AND DISTRIBUTION	273000.00	273000.00	273000.00	273000.00	273000.00	273000.00	273000.00
DIRECT COSTS, SALES AND DISTRIBUTION	0.00	0.00	0.00	0.00	0.00	0.00	0.00
DEPRECIATION	133285.00	40103.00	40103.00	40103.00	40103.00	40103.00	40103.00
INDIRECT COSTS	248223.60	153819.30	151240.00	167220.00	167220.00	167220.00	167220.00
TOTAL PRODUCTION COSTS	1064443.20	1064443.20	1064443.20	1064443.20	1064443.20	1064443.20	1064443.20
Costs per unit (single product)	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Net Revenue	57321	87178	87178	87178	87178	87178	87178
Net Profit	58000	87178	87178	87178	87178	87178	87178
Total Profit	115321	174356	174356	174356	174356	174356	174356

Source: Bureau of Agricultural Economics, U.S. Department of Agriculture



REPORT ON THE PROGRESS OF THE WORK DURING THE YEAR 1950

Total Production Costs - (In millions of dollars)

	1949	1950	1951	1952
Factory costs	1672260.000	1672260.000	1672260.000	1672260.000
Administrative overheads	403011.200	403011.200	403011.200	403011.200
Profit, costs, sales and distribution	0.000	0.000	0.000	0.000
Depreciation	409183.200	409183.200	409183.200	409183.200
Financial costs	50521.400	50521.400	50521.400	50521.400
<b>Total production costs</b>	<b>1755895.800</b>	<b>1755895.800</b>	<b>1755895.800</b>	<b>1755895.800</b>
Costs per unit (air-dried product)	0.000	0.000	0.000	0.000
Of it foreign	82.454	82.454	82.454	82.454
Of it variable	89.325	89.325	89.325	89.325
<b>Total labour</b>	<b>51937.800</b>	<b>51937.800</b>	<b>51937.800</b>	<b>51937.800</b>

EXPENDITURE PROVISIONAL TO FISH 1950 --- 13.4.1952



CONFAR, INC. - FORT WORTH, TEXAS, U.S.A.

Cashflow Tables, construction - Initial construction

Initial cash balance	0.00	100.00
Financial resources	0.00	100.00
Surplus, net of taxes	0.00	0.00
Total cash surplus	0.00	200.00
Total assets	0.00	200.00
Debtors' claims	0.00	0.00
Cost of finance	0.00	200.00
Depreciation	0.00	0.00
Corporate tax	0.00	0.00
Dividends paid	0.00	0.00
Surplus (deficit)	0.00	100.00
Calculated cash balance	0.00	100.00
Initial cash	0.00	77,500.00
Debtors' claims	0.00	22,500.00
Surplus (deficit)	0.00	35,000.00
Initial surplus	0.00	100,000.00
Initial surplus	0.00	100,000.00
Surplus (deficit)	0.00	-50,000.00
Net surplus	0.00	-50,000.00
Calculated net surplus	0.00	-50,000.00

CONFAR, INC. - FORT WORTH, TEXAS, U.S.A.



COMFAR 111 - FINANCIAL STATEMENTS, 1980-1989

Cashflow tables, production (Million Tunisian dinars)

Year	1980	1981	1982	1983	1984	1985	1986
Total cash inflow	2,526,070,000	2,701,589,000	2,026,910,000	2,079,820,000	2,108,470,000	2,126,820,000	2,166,550,000
Financial resources	777,270,000	1,007,109,000	896,670,000	1,119,910,000	1,190,649,000	0,000	0,000
Sales, net of tax	2,166,550,000	1,420,790,000	1,870,440,000	2,040,880,000	2,166,550,000	2,166,550,000	2,166,550,000
Total cash outflow	1,093,620,000	1,931,500,000	2,026,500,000	2,012,070,000	1,581,920,000	1,953,510,000	1,966,160,000
Total assets	640,937,000	368,150,000	1,481,970,000	1,857,330,000	1,774,670,000	0,000	0,000
Operating costs	418,620,000	1,000,390,000	1,656,150,000	1,704,070,000	1,749,020,000	1,749,020,000	1,749,020,000
Cost of finance	244,650,000	654,484,000	712,024,000	300,584,000	311,730,000	245,542,000	172,072,000
Repayment	0,000	0,000	1,506,500,000	1,487,262,000	601,714,000	667,903,400	741,372,000
Corporate tax	0,000	0,000	0,000	955,414,600	1,209,028,000	1,232,191,000	1,257,605,000
Dividends paid	0,000	0,000	0,000	0,000	0,000	0,000	0,000
Surplus (deficit)	-2,000	90,000	1128,000	642,495,000	1,974,364,000	2,026,614,000	2,003,904,000
Reconciled cash balance	158,375	240,375	1368,375	643,664,400	2,618,229,000	4,647,643,000	6,651,747,000
Inflow, local	359,920,000	512,956,000	1,006,270,000	1,495,416,000	1,648,092,000	1,643,602,000	1,643,602,000
Outflow, local	254,753,000	558,332,000	709,367,000	751,997,000	755,577,000	790,831,000	793,425,000
Surplus (deficit)	105,167,000	-45,376,000	296,903,000	743,419,000	892,515,000	852,771,000	850,177,000
Inflow, foreign	703,694,000	820,120,000	715,974,000	551,703,000	530,247,000	522,500,000	522,500,000
Outflow, foreign	626,875,000	1,146,160,000	1,517,495,000	1,260,390,000	1,165,440,000	1,172,760,000	1,172,760,000
Surplus (deficit)	-123,181,000	-326,040,000	-801,521,000	-708,687,000	-635,193,000	-650,260,000	-650,260,000
Net cashflow	-655,647,000	-1,684,330,000	202,190,000	26,844,000	263,809,000	243,351,000	291,747,000
Reconciled net cashflow	-661,647,000	-1,684,330,000	-85,519,000	-351,459,000	-1,066,710,000	1,876,212,000	4,951,659,000

Joint-venture F100010/041 in Tunisia --- 10.4.1990



1968-69 - SUPPLEMENTARY STATEMENTS

Cashflow tables, production in State business

Year	1968	1969	1970	1971	1972	1973	1974	1975	1976
Total cash inflow	2055820.000	2055820.000	2055820.000	2055820.000	2055820.000	2055820.000	2055820.000	2055820.000	2055820.000
Personal resources	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Salaries, net of tax	2055820.000	2055820.000	2055820.000	2055820.000	2055820.000	2055820.000	2055820.000	2055820.000	2055820.000
Total cash outflow	1850000.000	1850000.000	1850000.000	1850000.000	1850000.000	1850000.000	1850000.000	1850000.000	1850000.000
Total assets	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Operating costs	1740270.000	1740270.000	1740270.000	1740270.000	1740270.000	1740270.000	1740270.000	1740270.000	1740270.000
Cost of foreign	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Repayments	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Corporate tax	106453.000	106453.000	106453.000	106453.000	106453.000	106453.000	106453.000	106453.000	106453.000
Dividends paid	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Surplus (deficit)	1855820.000	1855820.000	1855820.000	1855820.000	1855820.000	1855820.000	1855820.000	1855820.000	1855820.000
Consolidated cash balance	827104.000	1168200.000	1454030.000	1719870.000	2005550.000	2271270.000	2537122.000	2802980.000	3068850.000
Inflow, local	1643020.000	1643020.000	1643020.000	1643020.000	1643020.000	1643020.000	1643020.000	1643020.000	1643020.000
Outflow, local	792368.000	792368.000	792368.000	792368.000	792368.000	792368.000	792368.000	792368.000	792368.000
Surplus (deficit)	843652.000	843652.000	843652.000	843652.000	843652.000	843652.000	843652.000	843652.000	843652.000
Inflow, foreign	522500.000	522500.000	522500.000	522500.000	522500.000	522500.000	522500.000	522500.000	522500.000
Outflow, foreign	1122600.000	1614150.000	10614150.000	10614150.000	10614150.000	10614150.000	10614150.000	10614150.000	10614150.000
Surplus (deficit)	-580080.000	-580080.000	-580080.000	-580080.000	-580080.000	-580080.000	-580080.000	-580080.000	-580080.000
Net cashflow	255800.000	255800.000	255800.000	255800.000	255800.000	255800.000	255800.000	255800.000	255800.000
Consolidated net cashflow	752462.000	1028250.000	1294030.000	1559870.000	1825750.000	2091630.000	2357510.000	2623390.000	2889270.000

Continuation of Form 990-SS (12-31-76)



COMFAR 21 - FINANCIAL STATEMENTS, 1948

Cashflow tables, production in Indochina (continued)

Total cash flow . . . . .	215,850,000
Operating resources . . . . .	3,000
Other cash flow . . . . .	216,850,000
Total cash inflow . . . . .	216,850,000
Total assets . . . . .	0,000
Operating costs . . . . .	174,000,000
Cost of finance . . . . .	0,000
Depreciation . . . . .	0,000
Corporate tax . . . . .	131,810,000
Dividends paid . . . . .	0,000
Surplus (deficit) . . . . .	28,040,000
Adjusted cash balance . . . . .	28,040,000
Cashflow, local . . . . .	164,200,000
Cashflow, foreign . . . . .	79,600,000
Surplus (deficit) . . . . .	64,370,000
Cashflow, foreign . . . . .	52,200,000
Surplus (deficit) . . . . .	108,150,000
Surplus (deficit) . . . . .	-53,660,000
Net cashflow . . . . .	28,040,000
Adjusted net cashflow . . . . .	28,040,000

Montreuil, France, 1948



..... (Page 2) - FINPT CONSULTING, S.P.A. - 14.1 - .....

**Cashflow Discounting:**

1. Equity and Debt Net Income Flow	
Net Present Value .....	15,000
Internal Rate of Return (IRR) .....	25.00%
2. Net Equity Value Net Cash Return	
Net Present Value .....	15,000
Internal Rate of Return (IRR) .....	25.00%
3. Internal Rate of Return on Total Investment	
Net Present Value .....	15,000
Internal Rate of Return (IRR) .....	25.00%
Net worth = Equity paid plus reserves	

..... Joint-venture FIA610/SAT in Tunisia --- 13.4.1992





COMPASS LTD. - FILIPINO INVESTING, INC., 1954-1955

Net Income Statement of Indicators amounts:

	1954	1955	1954	1955	1954	1955	1954	1955
Net sales, incl. sales tax	316,858,000	345,751,000	170,946,000	213,889,000	316,858,000	345,751,000	170,946,000	213,889,000
Less: Variable costs, incl. sales tax	238,225,000	185,235,000	130,320,000	157,220,000	238,225,000	185,235,000	130,320,000	157,220,000
Variable profit	78,633,000	160,516,000	40,626,000	56,669,000	78,633,000	160,516,000	40,626,000	56,669,000
% of total sales	24.82	46.43	23.80	26.45	24.82	46.43	23.80	26.45
Non-variable costs, incl. depreciation	187,025,000	189,419,000	172,449,000	172,190,000	187,025,000	189,419,000	172,449,000	172,190,000
Operational margin	-114,024,000	71,137,000	30,277,000	33,679,000	-114,024,000	71,137,000	30,277,000	33,679,000
% of total sales	-35.99	20.58	17.72	15.42	-35.99	20.58	17.72	15.42
Cost of finance	34,685,000	65,444,000	71,074,000	60,664,000	34,685,000	65,444,000	71,074,000	60,664,000
Gross profit	-149,029,000	2,693,000	1,916,000	27,976,000	-149,029,000	2,693,000	1,916,000	27,976,000
Allowances	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000
Variable profit	-149,029,000	2,693,000	1,916,000	27,976,000	-149,029,000	2,693,000	1,916,000	27,976,000
Tax	0,000	0,000	0,000	5,549,000	0,000	0,000	0,000	5,549,000
Net profit	-149,029,000	2,693,000	1,916,000	17,427,000	-149,029,000	2,693,000	1,916,000	17,427,000
Dividends paid	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000
Undistributed profit	-149,029,000	2,693,000	1,916,000	17,427,000	-149,029,000	2,693,000	1,916,000	17,427,000
Accumulated undistributed profit	-149,029,000	-12,699,000	4,117,000	219,449,000	-149,029,000	-12,699,000	4,117,000	219,449,000
Gross profit, % of total sales	-47.10	0.78	1.12	13.21	-47.10	0.78	1.12	13.21
Net profit, % of total sales	-47.10	0.78	1.12	6.51	-47.10	0.78	1.12	6.51
Net profit, % of equity	-47.10	5.33	4.07	44.79	-47.10	5.33	4.07	44.79
All. Net profit, % of invest.	-45.94	5.75	4.32	45.17	-45.94	5.75	4.32	45.17

Reported under Philippine Securities Act No. 10, 1919



FORM 100 - FISCAL YEAR 1954

Net Income Statement in Balance Sheet

	1953	1954	1955	1956	1957
Total sales, incl. sales tax	3,000,000.00	3,000,000.00	3,000,000.00	3,000,000.00	3,000,000.00
Less: Variable costs, incl. sales tax	1,617,450.00	1,617,450.00	1,617,450.00	1,617,450.00	1,617,450.00
Gross profit	1,382,550.00	1,382,550.00	1,382,550.00	1,382,550.00	1,382,550.00
As % of total sales	46.1%	46.1%	46.1%	46.1%	46.1%
Operating costs, incl. depreciation	1,181,800.00	1,181,800.00	1,181,800.00	1,181,800.00	1,181,800.00
Operational profit	200,750.00	200,750.00	200,750.00	200,750.00	200,750.00
As % of total sales	6.7%	6.7%	6.7%	6.7%	6.7%
Cost of finance	170,000.00	170,000.00	170,000.00	170,000.00	170,000.00
Gross profit	3,000,000.00	3,000,000.00	3,000,000.00	3,000,000.00	3,000,000.00
Allocances	0.00	0.00	0.00	0.00	0.00
Variable profit	3,000,000.00	3,000,000.00	3,000,000.00	3,000,000.00	3,000,000.00
Exp	1,257,905.00	1,257,905.00	1,257,905.00	1,257,905.00	1,257,905.00
Net profit	2,381,105.00	2,381,105.00	2,381,105.00	2,381,105.00	2,381,105.00
Dividends paid	0.00	0.00	0.00	0.00	0.00
Retained profit	2,381,105.00	2,381,105.00	2,381,105.00	2,381,105.00	2,381,105.00
Accumulated undistributed profit	90,825.00	1,145,830.00	1,390,230.00	1,635,230.00	1,879,820.00
Gross profit, % of total sales	46.1%	46.1%	46.1%	46.1%	46.1%
Net profit, % of total sales	76.9%	76.9%	76.9%	76.9%	76.9%
Exp, net profit, % of equity	51.4%	51.4%	51.4%	51.4%	51.4%
Exp, net profit, % of assets	51.4%	51.4%	51.4%	51.4%	51.4%

Amounts are rounded off to nearest cent



COMFAR S.A.  
S.A. 1960

FORM 211 - FIDELI CONSULTING, S.P.A. IT 1/1/1960

Net Income Statement in Italian Lire thousands

Year	1959	1960	1961
Total sales incl. sales tax	376,608,000	376,608,000	376,608,000
Less: variable costs, excl. sales tax	187,740,000	187,740,000	187,740,000
Gross profit	188,868,000	188,868,000	188,868,000
As % of total sales	50.15%	50.15%	50.15%
Variable costs, incl. depreciation	171,995,000	171,995,000	171,995,000
Operational expense	37,608,000	37,608,000	37,608,000
As % of total sales	10.00%	10.00%	10.00%
Cost of finance	0,000	0,000	0,000
Gross profit	376,608,000	376,608,000	376,608,000
Provision	0,000	0,000	0,000
Variable costs	187,740,000	187,740,000	187,740,000
Tax	118,131,000	118,131,000	118,131,000
Net profit	247,957,000	247,957,000	247,957,000
Dividends paid	0,000	0,000	0,000
Undistributed profit	247,957,000	247,957,000	247,957,000
Accumulated undistributed profit	26,410,000	26,410,000	26,410,000
Gross profit, % of total sales	50.15%	50.15%	50.15%
Net profit, % of total sales	65.84%	65.84%	65.84%
Net profit, % of equity	81.15%	81.15%	81.15%
Net investment, % of net profit	10.00%	10.00%	10.00%

Documente F14610/561 in English --- 12.6.1962



----- COMFAR 2.1 - FIGINI CONSULTING, FORM. I.T.A. S.p.A. -----

Projected Balance Sheets, construction in Italian Liras (thousands)

Year	1992.1	1992.2
Total assets	0.000	2086175.000
Fixed assets, net of depreciation	0.000	0.000
Construction in progress	0.000	2086015.000
Current assets	0.000	0.000
Cash, bank	0.000	0.000
Cash surplus, finance available	0.000	160.375
Loss carried forward	0.000	0.000
Loss	0.000	0.000
Total liabilities	0.000	2086175.000
Equity capital	0.000	1242000.000
Reserves, retained profit	0.000	0.000
Profit	0.000	0.000
Long and medium term debt	0.000	844175.000
Current liabilities	0.000	0.000
Bank overdraft, finance required	0.000	0.000
Total debt	0.000	844175.000
Equity, % of liability	0.000	59.535

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Joint-venture PIAGGIO/SAT in Tunisia --- 13.4.1992



Projected Balance Sheets, Production of Hydrogen Sulfide

	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	Total
<b>Total Assets</b>	10,000,000	11,000,000	12,000,000	13,000,000	14,000,000	15,000,000	16,000,000	17,000,000	18,000,000	19,000,000	20,000,000	180,000,000
Equity capital	4,000,000	4,000,000	4,000,000	4,000,000	4,000,000	4,000,000	4,000,000	4,000,000	4,000,000	4,000,000	4,000,000	40,000,000
Reserves, retained profit	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Profit	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Long and medium term debt	3,000,000	3,000,000	3,000,000	3,000,000	3,000,000	3,000,000	3,000,000	3,000,000	3,000,000	3,000,000	3,000,000	30,000,000
Current liabilities	3,000,000	4,000,000	5,000,000	6,000,000	7,000,000	8,000,000	9,000,000	10,000,000	11,000,000	12,000,000	13,000,000	130,000,000
Loss carried forward	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>Total Liabilities</b>	6,000,000	7,000,000	8,000,000	9,000,000	10,000,000	11,000,000	12,000,000	13,000,000	14,000,000	15,000,000	16,000,000	160,000,000
Equity capital	4,000,000	4,000,000	4,000,000	4,000,000	4,000,000	4,000,000	4,000,000	4,000,000	4,000,000	4,000,000	4,000,000	40,000,000
Reserves, retained profit	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Profit	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Long and medium term debt	3,000,000	3,000,000	3,000,000	3,000,000	3,000,000	3,000,000	3,000,000	3,000,000	3,000,000	3,000,000	3,000,000	30,000,000
Current liabilities	3,000,000	4,000,000	5,000,000	6,000,000	7,000,000	8,000,000	9,000,000	10,000,000	11,000,000	12,000,000	13,000,000	130,000,000
Loss carried forward	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>Total</b>	10,000,000	11,000,000	12,000,000	13,000,000	14,000,000	15,000,000	16,000,000	17,000,000	18,000,000	19,000,000	20,000,000	180,000,000

Total reserves 11,500,000 at Dec 31, 1951

--- 13.4.1951



1975-76 - FISH ENGINEERING, 1975, 1741

Projected Balance Sheets, Production of Submarine Fisheries

	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986
Total assets	1000000.00	1000000.00	1000000.00	1000000.00	1000000.00	1000000.00	1000000.00	1000000.00	1000000.00	1000000.00	1000000.00	1000000.00
Fixed assets, net of depreciation	200000.00	200000.00	200000.00	200000.00	200000.00	200000.00	200000.00	200000.00	200000.00	200000.00	200000.00	200000.00
Construction in progress	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Current assets	800000.00	800000.00	800000.00	800000.00	800000.00	800000.00	800000.00	800000.00	800000.00	800000.00	800000.00	800000.00
Cash	200000.00	200000.00	200000.00	200000.00	200000.00	200000.00	200000.00	200000.00	200000.00	200000.00	200000.00	200000.00
Cash available, finance available	200000.00	200000.00	200000.00	200000.00	200000.00	200000.00	200000.00	200000.00	200000.00	200000.00	200000.00	200000.00
Less current borrowings	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Less current assets	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total liabilities	1000000.00	1000000.00	1000000.00	1000000.00	1000000.00	1000000.00	1000000.00	1000000.00	1000000.00	1000000.00	1000000.00	1000000.00
Equity capital	400000.00	400000.00	400000.00	400000.00	400000.00	400000.00	400000.00	400000.00	400000.00	400000.00	400000.00	400000.00
Reserves, retained profit	300000.00	300000.00	300000.00	300000.00	300000.00	300000.00	300000.00	300000.00	300000.00	300000.00	300000.00	300000.00
Profit	200000.00	200000.00	200000.00	200000.00	200000.00	200000.00	200000.00	200000.00	200000.00	200000.00	200000.00	200000.00
Loss and reduction term debt	-0.125	-0.125	-0.125	-0.125	-0.125	-0.125	-0.125	-0.125	-0.125	-0.125	-0.125	-0.125
Current liabilities	400000.00	400000.00	400000.00	400000.00	400000.00	400000.00	400000.00	400000.00	400000.00	400000.00	400000.00	400000.00
Bank overdraft, finance required	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total debt	400000.00	400000.00	400000.00	400000.00	400000.00	400000.00	400000.00	400000.00	400000.00	400000.00	400000.00	400000.00
Equity, % of liabilities	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00

Total - Centre F146610-547 in Tunisia --- 10.4.1972



COMPAR S.p.A. - ENGINEERING CONSULTING FIRM, ITALY

Projected Balance Sheets, Production in Italian Liras (Thousands)

Year . . . . .	1977
Total assets . . . . .	28788100.000
Fixed assets, net of depreciation	1043209.000
Construction in progress . . . . .	0.000
Current assets . . . . .	7110192.100
Cash, bank . . . . .	2860.175
Cash surplus, finance available . . . . .	10424920.000
Loss carried forward . . . . .	0.000
Loss . . . . .	0.000
Total liabilities . . . . .	28788100.000
Equity capital . . . . .	4000000.000
Reserves, retained profit . . . . .	26142100.000
Profit . . . . .	2447999.000
Long and medium term debt . . . . .	-0.125
Current liabilities . . . . .	4198065.000
Bank overdraft, finance required . . . . .	0.000
Total debt . . . . .	4198065.000
Equity, % of liabilities . . . . .	10.893

Joint-venture FIAGGIC/SAT in Tunisia --- 13.4.1992

ATTACHMENT 2  
COMFAR TABLES - SCENARIO 2





Contributions (US\$) 1964-1965  
 184,000  
 Expenses 1964-1965

Balance of contributions at start of period  
 1,000,000  
 Total current period  
 1,184,000  
 Total current period  
 1,184,000  
 Balance at end of period

**Total initial investment - 1,184,000**

Fixed assets: 1,184,000  
 Current assets: 0  
 Total assets: 1,184,000

**Source of funds - 1,184,000**

Grants: 1,184,000  
 Loans: 0  
 Total: 1,184,000

**Cashflow from operations**

Year	1	2	3
Operating costs:	400,000	400,000	400,000
Operating income:	100,000	100,000	100,000
Interest:	0	0	0
Dividends:	0	0	0
Net income:	100,000	100,000	100,000
Retained earnings:	0	100,000	200,000
Dividends:	0	0	0
Net income:	100,000	100,000	100,000
Retained earnings:	0	100,000	200,000

Net Income	1,000.00	1,000.00	1,000.00
Total Assets	10,000.00	10,000.00	10,000.00

Net Income	1,000.00	1,000.00
Total Assets	10,000.00	10,000.00

Index of Schedules created in 1964

Total Assets	10,000.00	10,000.00
Total Liabilities	1,000.00	1,000.00
Total Equity	9,000.00	9,000.00



OFFICE DE PROMOTION DES INVESTISSEMENTS ÉTRANGERS

Total Initial Investment in Industrial Investment

	1981	1982
Fixed investment costs		
Land, site preparation, development	0.000	0.000
Buildings and civil works	0.000	57000.000
Equipment and service facilities	0.000	0.000
Pre-operating fixed assets	0.000	255497.500
Plant inventory and equipment	0.000	1170000.000
<b>Total fixed investment costs</b>	<b>0.000</b>	<b>2077570.000</b>
Pre-operating capital expenditures	0.000	10170.000
Net working capital	0.000	0.000
<b>Total initial investment costs</b>	<b>0.000</b>	<b>2077570.000</b>
Cost foreign, in \$	0.000	29.091

Joint-venture FIAGGIO/SAT in Tunisia --- 24.4.1992



UNITED STATES DEPARTMENT OF JUSTICE  
 FEDERAL BUREAU OF INVESTIGATION  
 WASHINGTON, D.C. 20535

**Total Current Investment - Summary**

	1992	1991	1990	1989	1988
<b>Investment costs</b>					
- Site preparation, incidentals	6,000	6,000	6,000	6,000	6,000
- Materials and other work	3,000,000	6,000	6,000	6,000	6,000
- Builders' and service facilities	7,000	6,000	6,000	6,000	6,000
- Incorporated travel funds	1,000,000	6,000	6,000	6,000	6,000
- Total, materials and equipment	2,000,000	6,000	6,000	6,000	6,000
<b>Total fixed investment costs</b>	<b>4,015,000</b>	<b>6,000</b>	<b>6,000</b>	<b>6,000</b>	<b>6,000</b>
<b>Preparation capital expenditures</b>	<b>6,000</b>	<b>6,000</b>	<b>6,000</b>	<b>6,000</b>	<b>6,000</b>
<b>Invest capital</b>	<b>2,000,000</b>	<b>14,500,000</b>	<b>6,000,000</b>	<b>7,000,000</b>	<b>7,000,000</b>
<b>Total current investment costs</b>	<b>6,021,000</b>	<b>14,512,000</b>	<b>6,012,000</b>	<b>7,012,000</b>	<b>7,012,000</b>
<b>Total Foreign</b>	<b>66,154</b>	<b>65,574</b>	<b>65,831</b>	<b>65,103</b>	<b>64,638</b>

Joint Venture FIAGRID/SEAT in Tunisia --- 24.4.1992



UNITED STATES OF AMERICA - FEDERAL RESERVE SYSTEM

Net Working Capital in Substantive Currency

	1987	1988	1989	1990	1991	1992
Current Assets:						
Accounts receivable	104,673,000	120,227,000	144,157,000	142,318,000	137,268,000	137,168,000
Inventory and merchandise	230,756,000	247,932,000	120,344,000	127,322,000	131,467,000	131,467,000
Prepaid	427,000	340,000	526,000	333,000	330,492	340,492
Other	3,683,000	4,531,000	5,871,000	5,677,000	5,118,700	5,118,700
Notes in progress	14,347,000	10,274,000	10,173,000	10,335,000	10,277,000	10,177,000
Financial resources	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000
Other	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000
Total current assets	145,380,000	146,264,000	164,078,000	163,665,000	167,463,000	167,163,000
Current liabilities:						
Accounts payable	80,000,000	100,000,000	100,000,000	100,000,000	100,000,000	100,000,000
Net working capital	65,380,000	46,264,000	64,078,000	63,665,000	67,463,000	67,163,000
Increase in working capital	7,000,000	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000
Net working capital, total	72,380,000	56,264,000	74,078,000	73,665,000	77,463,000	77,163,000
Net working capital, foreign	47,380,000	46,264,000	46,078,000	46,665,000	46,463,000	46,163,000

Total net = 100% less of coverage ratio = coefficient of turnover.

Joint-venture FIA6610/541 in Tunisia --- 24.4.1992



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Source of Finance, construction of infrastructure

Year	1970	1971
Public deposits	0.00	1000000.00
Public expenditure	0.00	0.00
Government revenue	0.00	0.00
Loan A, foreign	0.00	5000000.00
Loan B, foreign	0.00	0.00
Loan C, foreign	0.00	0.00
Loan A, local	0.00	0.00
Loan B, local	0.00	0.00
Loan C, local	0.00	0.00
Total loan	0.00	5000000.00
Current liabilities	0.00	0.00
Bank overdraft	0.00	0.00
Total funds	0.00	5000000.00

Joint venture FTAGET/SAT in Tunisia --- 24.4.1972



FORM 101 - (REVISED) (1954) (1-1)

Source of Finance, production & Sales (continued)

	1952	1953	1954	1955	1956	1957	1958	1959	1960
GRAND TOTAL	200,000,000	200,000,000	200,000,000	200,000,000	200,000,000	200,000,000	200,000,000	200,000,000	200,000,000
Current liabilities	100,000,000	100,000,000	100,000,000	100,000,000	100,000,000	100,000,000	100,000,000	100,000,000	100,000,000
Equity	100,000,000	100,000,000	100,000,000	100,000,000	100,000,000	100,000,000	100,000,000	100,000,000	100,000,000
Paid-up capital	50,000,000	50,000,000	50,000,000	50,000,000	50,000,000	50,000,000	50,000,000	50,000,000	50,000,000
Reserves	50,000,000	50,000,000	50,000,000	50,000,000	50,000,000	50,000,000	50,000,000	50,000,000	50,000,000
Surplus	0	0	0	0	0	0	0	0	0
Unrealized appreciation	0	0	0	0	0	0	0	0	0
Retained earnings	0	0	0	0	0	0	0	0	0
Depreciation	0	0	0	0	0	0	0	0	0
Accumulated losses	0	0	0	0	0	0	0	0	0
Deferred taxes	0	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0	0
Total	100,000,000	100,000,000	100,000,000	100,000,000	100,000,000	100,000,000	100,000,000	100,000,000	100,000,000
Total	100,000,000	100,000,000	100,000,000	100,000,000	100,000,000	100,000,000	100,000,000	100,000,000	100,000,000
Total	100,000,000	100,000,000	100,000,000	100,000,000	100,000,000	100,000,000	100,000,000	100,000,000	100,000,000

Joint-venture P1466108AT in 1958 --- 24,41592



Page 21 - 1971-1972, 1972, 1973, 1974

Source of Finance, production: 1971-1972

Capital	0.00	0.00	0.00
Debt	0.00	0.00	0.00
Equity	0.00	0.00	0.00
Retained profits	0.00	0.00	0.00
Loss to foreign	-5000.00	-5000.00	-5000.00
Loss to foreign	0.00	0.00	0.00
Loss to foreign	0.00	0.00	0.00
Loss to foreign	0.00	0.00	0.00
Loss to foreign	0.00	0.00	0.00
Loss to foreign	0.00	0.00	0.00
Loss to foreign	0.00	0.00	0.00
Total loss	-5000.00	-5000.00	-5000.00
Current liabilities	0.00	0.00	0.00
Net assets	0.00	0.00	0.00
Total funds	-5000.00	-5000.00	-5000.00

Joint-venture FIAGE/SAI in Tunisia --- 24.4.1972





Total Production Costs - Domestic Production

	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959
Materials, direct and indirect	102,853,000	111,319,000	119,158,000	127,900,000	136,800,000	145,700,000	154,600,000	163,500,000	172,400,000	181,300,000
Labor	38,453,000	40,853,000	43,253,000	45,653,000	48,053,000	50,453,000	52,853,000	55,253,000	57,653,000	60,053,000
Overhead	18,353,000	19,353,000	20,353,000	21,353,000	22,353,000	23,353,000	24,353,000	25,353,000	26,353,000	27,353,000
Energy	4,853,000	5,353,000	5,853,000	6,353,000	6,853,000	7,353,000	7,853,000	8,353,000	8,853,000	9,353,000
Depreciation	2,853,000	3,353,000	3,853,000	4,353,000	4,853,000	5,353,000	5,853,000	6,353,000	6,853,000	7,353,000
Factory maintenance	2,853,000	3,353,000	3,853,000	4,353,000	4,853,000	5,353,000	5,853,000	6,353,000	6,853,000	7,353,000
Repairs	2,853,000	3,353,000	3,853,000	4,353,000	4,853,000	5,353,000	5,853,000	6,353,000	6,853,000	7,353,000
Factory expenses	2,853,000	3,353,000	3,853,000	4,353,000	4,853,000	5,353,000	5,853,000	6,353,000	6,853,000	7,353,000
<b>Factory Costs</b>	<b>100,000,000</b>	<b>108,000,000</b>	<b>116,000,000</b>	<b>124,000,000</b>	<b>132,000,000</b>	<b>140,000,000</b>	<b>148,000,000</b>	<b>156,000,000</b>	<b>164,000,000</b>	<b>172,000,000</b>
Administrative expenses	40,000,000	42,000,000	44,000,000	46,000,000	48,000,000	50,000,000	52,000,000	54,000,000	56,000,000	58,000,000
Profit, costs, sales and distribution	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Direct costs, sales and distribution	100,000,000	108,000,000	116,000,000	124,000,000	132,000,000	140,000,000	148,000,000	156,000,000	164,000,000	172,000,000
Indirect costs	40,000,000	42,000,000	44,000,000	46,000,000	48,000,000	50,000,000	52,000,000	54,000,000	56,000,000	58,000,000
<b>Total Production Costs</b>	<b>140,000,000</b>	<b>150,000,000</b>	<b>160,000,000</b>	<b>170,000,000</b>	<b>180,000,000</b>	<b>190,000,000</b>	<b>200,000,000</b>	<b>210,000,000</b>	<b>220,000,000</b>	<b>230,000,000</b>
Costs per unit - single product	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Plant capacity, %	80.000	85.000	90.000	95.000	100.000	105.000	110.000	115.000	120.000	125.000
Plant utilization, %	80.000	85.000	90.000	95.000	100.000	105.000	110.000	115.000	120.000	125.000
Plant capacity	1,000,000	1,100,000	1,200,000	1,300,000	1,400,000	1,500,000	1,600,000	1,700,000	1,800,000	1,900,000
Plant utilization	800,000	937,500	1,080,000	1,237,500	1,400,000	1,575,000	1,762,500	1,962,500	2,175,000	2,387,500

Source: COMFAR, 1950-1959, p. 14, 15



1955-56 - 1956-57 - 1957-58 - 1958-59 - 1959-60

Total Production Costs - Distribution - Finance

	1955-56	1956-57	1957-58	1958-59	1959-60
Factory costs	1879220.00	1879220.00	1879220.00	1879220.00	1879220.00
Administrative overheads	403011.20	403011.20	403011.20	403011.20	403011.20
Selling costs, sales and distribution	235000.00	235000.00	235000.00	235000.00	235000.00
Direct costs, sales and distribution	0.00	0.00	0.00	0.00	0.00
Depreciation	409183.30	409183.30	409183.30	409183.30	409183.30
Financial costs	113010.50	30267.50	30267.50	0.00	0.00
<b>Total production costs</b>	<b>3601405.00</b>	<b>3601405.00</b>	<b>3601405.00</b>	<b>3601405.00</b>	<b>3601405.00</b>
Costs per unit (simple product)	0.00	0.00	0.00	0.00	0.00
Cost of exports	62.70	62.70	62.70	62.70	62.70
Cost of distribution	60.80	60.80	60.80	60.80	60.80
<b>Total cost</b>	<b>123.50</b>	<b>123.50</b>	<b>123.50</b>	<b>123.50</b>	<b>123.50</b>

Countersignature 2140310/241 15 10/5/59 --- 24.4.1992



CONFEDERATION OF COMMERCE FINANCIAL REPORTING

Cashflow Tables, construction of Cashflow Statement

Net cash provided by operating activities	1,000	2,000
Net cash used in investing activities	(1,000)	(2,000)
Net cash provided by financing activities	1,000	2,000
Net change in cash	1,000	2,000
Cash at beginning of period	1,000	1,000
Cash at end of period	2,000	3,000
Supplemental disclosures:		
Interest expense	100	200
Income tax expense	100	200
Depreciation expense	100	200
Gain on sale of assets	(100)	(200)
Loss on sale of assets	100	200
Dividend income	100	200
Interest income	100	200
Gain on sale of investments	(100)	(200)
Loss on sale of investments	100	200
Net change in cash	1,000	2,000
Cash at beginning of period	1,000	1,000
Cash at end of period	2,000	3,000

Total cash provided by operating activities - 2,000,000



COMFAR 1970-1980 - FINANCIAL STATEMENTS, PART I

Cashflow tables, production (Million U.S. dollars)

Year	1970	1971	1972	1973	1974	1975	1976
Production	17 348 511,000	17 082 910,000	17 024 110,000	17 024 110,000	17 024 110,000	17 024 110,000	17 024 110,000
Financial resources	16 200 000,000	17 000 000,000	17 000 000,000	17 000 000,000	17 000 000,000	17 000 000,000	17 000 000,000
Less: Net of tax	16 200 000,000	17 000 000,000	17 000 000,000	17 000 000,000	17 000 000,000	17 000 000,000	17 000 000,000
Total cash outflow	16 200 000,000	17 000 000,000	17 000 000,000	17 000 000,000	17 000 000,000	17 000 000,000	17 000 000,000
Total assets	540 457,000	540 457,000	540 457,000	540 457,000	540 457,000	540 457,000	540 457,000
Operational costs	412 624,000	412 624,000	412 624,000	412 624,000	412 624,000	412 624,000	412 624,000
Cost of finance	204 114,000	204 114,000	204 114,000	204 114,000	204 114,000	204 114,000	204 114,000
Repayment	0,000	0,000	0,000	0,000	0,000	0,000	0,000
Corporate tax	0,000	0,000	0,000	0,000	0,000	0,000	0,000
Dividends paid	0,000	0,000	0,000	0,000	0,000	0,000	0,000
Surplus (deficit)	-936,000	-936,000	-936,000	-936,000	-936,000	-936,000	-936,000
Accumulated cash balance	12309,000	12309,000	12309,000	12309,000	12309,000	12309,000	12309,000
Inflow, local	3895310,000	3895310,000	3895310,000	3895310,000	3895310,000	3895310,000	3895310,000
Outflow, local	2547523,000	2547523,000	2547523,000	2547523,000	2547523,000	2547523,000	2547523,000
Surplus (deficit)	1347787,000	1347787,000	1347787,000	1347787,000	1347787,000	1347787,000	1347787,000
Inflow, foreign	1555269,000	1555269,000	1555269,000	1555269,000	1555269,000	1555269,000	1555269,000
Outflow, foreign	824802,000	824802,000	824802,000	824802,000	824802,000	824802,000	824802,000
Surplus (deficit)	-669533,000	-669533,000	-669533,000	-669533,000	-669533,000	-669533,000	-669533,000
Net cashflow	-669533,000	-669533,000	-669533,000	-669533,000	-669533,000	-669533,000	-669533,000
Accumulated net cashflow	-669533,000	-669533,000	-669533,000	-669533,000	-669533,000	-669533,000	-669533,000

Cashflow table 1970-1980 (Part I) - 24.4.1982





COMFAR - FINANCIAMIENTO, S.A. DE C.V.

Cashflow tables. production in industrial sector

Total assets	2,000,000
Total liabilities	2,000,000
Operating surplus	500,000
Surplus (deficit)	2,500,000
Total cash surplus	1,800,000
Total assets	3,800,000
Operating costs	(1,500,000)
Cost of finance	(500,000)
Dividend	500,000
Corporate tax	(1,000,000)
Dividends paid	500,000
Surplus (deficit)	2,800,000
Balance sheet balance	2,500,000
Inflow, local	1,800,000
Outflow, local	(700,000)
Surplus (deficit)	1,100,000
Inflow, foreign	500,000
Outflow, foreign	(1,000,000)
Surplus (deficit)	(500,000)
Net surplus	2,800,000
Adjusted net surplus	2,300,000

CONTINUARE PROXIMO DIA



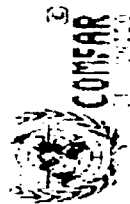
COMFAR S.p.A.  
1970

..... Corso 23 - 50121 CASALE DI S. PIERO, ITALY .....

Cashflow Discounting:

of Equity cash versus Net Income first	
Net Present Value ..... 48,000,000 at 10.00%	
Internal Rate of Return (IRR) is 10.00%	
2. Net Cash versus Net Cash Return:	
Net Present Value ..... 48,000,000 at 10.00%	
Internal Rate of Return (IRR) is 10.00%	
3. Internal Rate of Return on total investments:	
Net Present Value ..... 48,000,000 at 10.00%	
Internal Rate of Return (IRR) is 10.00%	
Net Income = Equity paid plus reserves	

..... Count-Venture P16610/SPT in Torino ---- 26.4.1992 .....



1978-79 - FIRST QUARTER, 1978, 1979

Net Income Statement - (continued)

	1978	1979	1978	1979	1978	1979
Net sales	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000
Cost of sales	(400,000)	(400,000)	(400,000)	(400,000)	(400,000)	(400,000)
Gross profit	600,000	600,000	600,000	600,000	600,000	600,000
Operating expenses	(200,000)	(200,000)	(200,000)	(200,000)	(200,000)	(200,000)
Depreciation	(50,000)	(50,000)	(50,000)	(50,000)	(50,000)	(50,000)
Amortization	(10,000)	(10,000)	(10,000)	(10,000)	(10,000)	(10,000)
Interest	(20,000)	(20,000)	(20,000)	(20,000)	(20,000)	(20,000)
Income tax	(10,000)	(10,000)	(10,000)	(10,000)	(10,000)	(10,000)
Other	(10,000)	(10,000)	(10,000)	(10,000)	(10,000)	(10,000)
Operating profit	310,000	310,000	310,000	310,000	310,000	310,000
Other income	50,000	50,000	50,000	50,000	50,000	50,000
Other expenses	(20,000)	(20,000)	(20,000)	(20,000)	(20,000)	(20,000)
Income tax	(10,000)	(10,000)	(10,000)	(10,000)	(10,000)	(10,000)
Net profit	330,000	330,000	330,000	330,000	330,000	330,000
Dividends paid	(10,000)	(10,000)	(10,000)	(10,000)	(10,000)	(10,000)
Retained profit	320,000	320,000	320,000	320,000	320,000	320,000
Accumulated undistributed profit	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000
Gross profit % of total sales	60%	60%	60%	60%	60%	60%
Net profit % of total sales	33%	33%	33%	33%	33%	33%
Operating profit % of total sales	31%	31%	31%	31%	31%	31%
Net profit % of assets	10%	10%	10%	10%	10%	10%
Operating profit % of assets	8%	8%	8%	8%	8%	8%

1978-79 - FIRST QUARTER, 1978, 1979





1956-57 - 1957-58 (1956-57, 1957-58)

Net Income Statement - (Units: US\$ million)

	1956-57	1957-58	1956-57	1957-58	1956-57	1957-58
Revenue	218,500,000	218,500,000	218,500,000	218,500,000	218,500,000	218,500,000
Less: Variable costs, incl. depreciation	181,750,000	181,750,000	181,750,000	181,750,000	181,750,000	181,750,000
Operating profit	36,750,000	36,750,000	36,750,000	36,750,000	36,750,000	36,750,000
Less: Fixed costs	25,250	25,250	25,250	25,250	25,250	25,250
Non-depreciable costs, incl. depreciation	172,500,000	172,500,000	172,500,000	172,500,000	172,500,000	172,500,000
Depreciable assets	37,600,000	37,600,000	37,600,000	37,600,000	37,600,000	37,600,000
Less: Depreciation	17,350	17,350	17,350	17,350	17,350	17,350
Cost of finance	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000
Gross profit	36,750,000	36,750,000	36,750,000	36,750,000	36,750,000	36,750,000
Less: Expenses	0,000	0,000	0,000	0,000	0,000	0,000
Operating profit	36,750,000	36,750,000	36,750,000	36,750,000	36,750,000	36,750,000
Less: Finance charges	12,500,000	12,500,000	12,500,000	12,500,000	12,500,000	12,500,000
Net profit	24,250,000	24,250,000	24,250,000	24,250,000	24,250,000	24,250,000
Less: Finance charges	0,000	0,000	0,000	0,000	0,000	0,000
Operating profit	24,250,000	24,250,000	24,250,000	24,250,000	24,250,000	24,250,000
Less: Finance charges	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000
Gross profit & of total sales	14,250	14,250	14,250	14,250	14,250	14,250
Less: Expenses	14,250	14,250	14,250	14,250	14,250	14,250
Operating profit	0,000	0,000	0,000	0,000	0,000	0,000
Less: Finance charges	14,250	14,250	14,250	14,250	14,250	14,250
Net profit	14,250	14,250	14,250	14,250	14,250	14,250

Continued on page 14-2 (1956-57, 1957-58)



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**Net Income Statement: Indicators**

.....	.....	.....	.....	.....
Total sales, incl. other inc. ....	1,000,000	1,000,000	1,000,000	1,000,000
Less: Variable costs, incl. other inc. ....	300,000	300,000	300,000	300,000
Variable margin	700,000	700,000	700,000	700,000
As % of total sales	70.0%	70.0%	70.0%	70.0%
Non-variable costs, incl. depreciation	170,000	170,000	170,000	170,000
Professional margin	530,000	530,000	530,000	530,000
As % of total sales	53.0%	53.0%	53.0%	53.0%
Cost of finance	0.000	0.000	0.000	0.000
Gross profit	370,000	370,000	370,000	370,000
Allowances	0.000	0.000	0.000	0.000
Taxable profit	370,000	370,000	370,000	370,000
Tax	100,000	100,000	100,000	100,000
Net profit	270,000	270,000	270,000	270,000
Shareholders' share	0.000	0.000	0.000	0.000
Distributed profit	270,000	270,000	270,000	270,000
Accumulated undistributed profit	0.000	0.000	0.000	0.000
Gross profit, % of total sales	37.0%	37.0%	37.0%	37.0%
Net profit, % of total sales	27.0%	27.0%	27.0%	27.0%
As % of total sales	27.0%	27.0%	27.0%	27.0%
As % of professional margin	51.0%	51.0%	51.0%	51.0%

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COMFAR - FINANCIAL STATEMENTS, 1960-1961

Projected Balance Sheets, construction v. maintenance

Year	1960	1961
Total assets	1088075.000	1088075.000
Fixed assets, net of depreciation	0.000	0.000
Construction in progress	0.000	1088075.000
Current assets	0.000	0.000
Cash, bank	0.000	0.000
Cash surplus, finance available	0.000	1088075.000
Loss carried forward	0.000	0.000
Loss	0.000	0.000
Total liabilities	0.000	1088075.000
Equity capital	0.000	1088075.000
Reserves, retained profit	0.000	0.000
Profit	0.000	0.000
Loan and medium term debt	0.000	344075.000
Current liabilities	0.000	0.000
Bank overdrafts, finance required	0.000	0.000
Total debt	0.000	344075.000
Equity, % of liabilities	0.000	59.555

Joint-venture F15000/SAT in Tunisia --- 24.4.1962



CONFAR CO. - FIDELITY INVESTMENT CO., NEW YORK

Projected Balance Sheets, Production in Millions of Dollars

	1953	1954	1955	1956	1957	1958	1959
Total assets	1,070,000,000	1,148,000,000	1,236,000,000	1,324,000,000	1,412,000,000	1,500,000,000	1,588,000,000
Fixed assets, net of depreciation	380,000,000	380,000,000	380,000,000	380,000,000	380,000,000	380,000,000	380,000,000
Construction in progress	400,000,000	400,000,000	400,000,000	400,000,000	400,000,000	400,000,000	400,000,000
Current assets	290,000,000	368,000,000	456,000,000	544,000,000	632,000,000	720,000,000	808,000,000
Cash, bank	240,000,000	270,000,000	300,000,000	330,000,000	360,000,000	390,000,000	420,000,000
Cash surplus, finance available	50,000,000	98,000,000	156,000,000	214,000,000	272,000,000	330,000,000	388,000,000
Loss carried forward	0,000	0,000	0,000	0,000	0,000	0,000	0,000
Loss	0,000	0,000	0,000	0,000	0,000	0,000	0,000
Total liabilities	571,000,000	659,000,000	747,000,000	835,000,000	923,000,000	1,011,000,000	1,100,000,000
Equity capital	500,000,000	490,000,000	490,000,000	490,000,000	490,000,000	490,000,000	490,000,000
Reserves, retained profit	0,000	0,000	0,000	0,000	0,000	0,000	0,000
Profit	0,000	0,000	0,000	0,000	0,000	0,000	0,000
Long and medium term debt	70,000,000	70,000,000	70,000,000	70,000,000	70,000,000	70,000,000	70,000,000
Current liabilities	81,000,000	89,000,000	97,000,000	105,000,000	113,000,000	121,000,000	129,000,000
Bank overdraft, finance reserves	14,000,000	14,000,000	14,000,000	14,000,000	14,000,000	14,000,000	14,000,000
Total debt	571,000,000	659,000,000	747,000,000	835,000,000	923,000,000	1,011,000,000	1,100,000,000
Surplus of liabilities	41,000,000	41,000,000	41,000,000	41,000,000	41,000,000	41,000,000	41,000,000

Joint venture 71,000,000 in 1958 - 14,2,1952



Page 21 - FUTURE PROJECTIONS, PERCENTAGES

Projected Balance Sheets, Production in Millions of Dollars

Year	1960	1961	1962	1963	1964	1965	1966
Total assets	24,484,400,000	26,055,620,000	27,626,850,000	29,203,300,000	30,785,210,000	32,368,170,000	33,951,100,000
Fixed assets, net of depreciation	20,000,000,000	21,500,000,000	23,000,000,000	24,500,000,000	26,000,000,000	27,500,000,000	29,000,000,000
Construction in progress	0,000	0,000	0,000	0,000	0,000	0,000	0,000
Current assets	4,484,400,000	4,555,620,000	4,626,850,000	4,703,300,000	4,785,210,000	4,868,170,000	4,951,100,000
Cash, bank	2,000,000,000	2,100,000,000	2,200,000,000	2,300,000,000	2,400,000,000	2,500,000,000	2,600,000,000
Accounts receivable	1,000,000,000	1,000,000,000	1,000,000,000	1,000,000,000	1,000,000,000	1,000,000,000	1,000,000,000
Inventory	1,484,400,000	1,455,620,000	1,426,850,000	1,403,300,000	1,385,210,000	1,368,170,000	1,351,100,000
Prepaid expenses	0,000	0,000	0,000	0,000	0,000	0,000	0,000
Other current assets	0,000	0,000	0,000	0,000	0,000	0,000	0,000
Total liabilities	20,484,400,000	21,055,620,000	21,626,850,000	22,203,300,000	22,785,210,000	23,368,170,000	23,951,100,000
Equity capital	4,000,000,000	4,000,000,000	4,000,000,000	4,000,000,000	4,000,000,000	4,000,000,000	4,000,000,000
Reserves, retained profit	10,000,000,000	10,000,000,000	10,000,000,000	10,000,000,000	10,000,000,000	10,000,000,000	10,000,000,000
Profit	2,745,000,000	2,745,000,000	2,745,000,000	2,745,000,000	2,745,000,000	2,745,000,000	2,745,000,000
Long and medium term debt	3,000,000,000	3,000,000,000	3,000,000,000	3,000,000,000	3,000,000,000	3,000,000,000	3,000,000,000
Current liabilities	4,198,065,000	4,198,065,000	4,198,065,000	4,198,065,000	4,198,065,000	4,198,065,000	4,198,065,000
Bank overdraft, finance required	-0,125	-0,125	-0,125	-0,125	-0,125	-0,125	-0,125
Total debt	6,000,000,000	6,000,000,000	6,000,000,000	6,000,000,000	6,000,000,000	6,000,000,000	6,000,000,000
Equity, % of liabilities	17,500	16,473	15,332	14,343	13,185	12,021	11,354

Joint-venture F26612/SAT in Tonkin --- 24.4.1962



COMFAR - Joint Venture with ...

Projected Balance Sheets, Production (Initials in Progress)

1987	1988
Total assets	2,000,000
Fixed assets, net of depreciation	1,000,000
Construction in progress	1,000,000
Current assets	1,000,000
Cash, bank	1,000,000
Cash credits, finance available	1,000,000
Loss carried forward	1,000,000
Loss	0,000

Total liabilities	2,000,000
Equity capital	400,000,000
Reserves, retained profit	2,000,000,000
Profit	2,000,000,000
Long and medium term debt	1,000,000
Current liabilities	4,000,000
Bank overdraft, finance required	-0,000
Total debt	4,000,000
Equity, net of liabilities	10,000

Joint-venture FIACIG/SAT in Tunisia --- 24.4.1992

ATTACHMENT 3  
LIST OF COMPONENTS - ASSEMBLY SKETCHES

PAGE NO. 1  
16/12/91

APR 60 PIANALE TUNISIA

Cod. E374002610 2nd and 3rd Phase

ITEM	PHASE	DRAWING	DENOMINAZIONE	DESCRIPTION	QTY	PART TOTAL
No.	No.	No.	( Italian )	( English )		PERCENTAGE
174	3	105204	PORTAVARCA	NUMBER PLATE HOLDER	1.0000	0.015141
164	3	107044	PARAPOLVERE	/DUST COVER OUTER BEARING	1.0000	0.004259
223	2	119925	LEVETTA	/LEVER	1.0000	0.002161
232	3	119928	LEVETTA	/LEVER	1.0000	0.002158
241	3	125411	LEVA COM. RETROMARCI	/REVERSE GEAR CONTROL LEVER	1.0000	0.015747
279	3	140008	ELEMENTO POST. TENUTA	/REAR ELEMENT	1.0000	0.004218
335	2	185095	SCHIENALE COMPLETO	/SEAT BACK	1.0000	0.172665
326	3	185456	SCODELLINO	/CUP	2.0000	0.015619
337	3	185686	STAFFA	/BRACKET	1.0000	0.004161
414	2	117226	M.O. PEDALE GAS CON P	/LABOUR THROTTLE PEDAL ASSY	1.0000	0.070171
423	2	8265	VITE	/SCREW	2.0000	0.000515
424	2	117631	PIASTRINA	/BRACKET	1.0000	0.004767
425	2	117633	SELLETTA	/CLIP	1.0000	0.004898
426	2	117634	ROMELLO	/ADJUSTER SCREW	1.0000	0.015413
477	2	141098	GUARNIZIONE	/PACKING	1.0000	0.002283
428	2	141424	PAPASOLE	/SUN SCREEN	1.0000	0.044541
432	3	119034	SERRATOIO CON P.I.	/FUEL TANK ASSY	1.0000	0.623305
757	2	109097	DIAFRAMMA	/DIAPHRAGM	1.0000	0.015801
815	2	162253	SEDILE CON COPERTURA	/SEAT	1.0000	0.795827
917	2	186951	PIANALE C.DI FIS.	/PICK-UP WITH FIXING	1.0000	4.796957
927	2	732035	GLITTA SOPP. MOT. COMP	/ENGINE SUPPORT ASSY	1.0000	1.226775
929	2	222036	ATTACCO TAMP.	/BUFFER ATTAC.	1.0000	0.118634
941	3	140727	ATTACCO PER RETR.	/BRACKET	2.0000	0.005593
945	2	163671	LEVA FRENO A MANO	/HAND BRAKE LEVER	1.0000	0.095420
946	2	163672	PORTA DX CPI	/R.H. DOOR ASSY	1.0000	0.854453
949	3	115324	PROF. GIUNZ. TEL. CAB.	/L.H. DOOR ASSY	1.0000	0.842047
952	3	108202	PADIGLIONE	/PROFIL	2.0000	0.002839
953	3	4040106010	MAST. P04 0,6X1200	/CEILING	1.0000	0.117752
954	2	142253	ORDINATA PARABR.COMP	/STRIP P04 0,6X1200	4.3520	0.087778
955	2	158840	PARETE POST COMPLETA	/WINDSHIELD RIM	1.0000	0.968629
957	2	500049	REINFORZO LAT. SUP. D.C	/REAR PANEL	1.0000	0.925088
958	2	500050	REINFORZO LAT. SUP. S.C	/R.H. LATERAL UPPER REINFORC. ASSY	1.0000	0.101240
959	2	500049	TELATO COMPL. SCUDI C	/L.H. LATERAL UPPER REINFORCEN. ASSY	1.0000	0.073577
972	2	117135	PORTELLO COMPL.	/CHASSIS WITH WINDSHIELD	1.0000	0.218040
				/COMPL. ENGINE INSPECT. DOOR	1.0000	0.457612

\*\*\* Total \*\*\*

21.687818



ARE NO 601 PIANALE TUNISIA

Cod. E37A002610 1st Phase

ITEM	PHASE	DRAWING	DEGNOMINAZIONE	DESCRIPTION	QTY	CASE TOTAL
No.	No.	No.	( Italian )	( English )		PERCENTAGE
822	1	A186000550	SIGILLANTE M1724	/DOPE ADHESIVE 555	0.0070	0.000400
841	1	5 163664	M.O. DEFLETTORE DS. CO	/LABOUR R.H. DEFLECTOR COMPLETE	1.0000	0.035435
867	1	185502	COMPL. MONT. PORTA SIN.	/COMPLETE LEFT DOOR	1.0000	0.000004
869	1	A186002930	SIGILLANTE V84200	/ADHESIVE V84200	0.0070	0.001140
871	1	A186002930	SIGILLANTE V84200	/ADHESIVE V84200	0.0005	0.000060
873	1	A186000550	SIGILLANTE M1724	/DOPE ADHESIVE 555	0.0070	0.000400
891	1	5 163667	M.O. DEFLETTORE SIN. CO	/LABOUR L.H. DEFLECTOR COMPLETE	1.0000	0.035435
916	1	186851	PIANALE COMPL. DI FIS.	/PICK-UP WITH FIXING	1.0000	3.468846
919	1	5 105700	M.O. ASTUCCIO P. FUSILE	/LABOUR ASSY OF FOR COMP. CASE FUSE	1.0000	0.004500
926	1	222035	BLITTA SOPP. MOTORE C	/ENGINE SUPPORT ASSY	1.0000	0.064407
928	1	222036	ATTACCO TAMP. EL. C. PI	/BUFFER ATTAC.	1.0000	0.003074
930	1	244475	TELATO COMPL. DI PORT	/COMPLETE CHASSIS	1.0000	3.633403
932	1	5 244475	M.O. TELATO COMPL. DI P	/LABOUR COMPLETE CHASSIS	1.0000	0.210710
934	1	A186006000	STUCCO IDROFUGO M10	/BOSTON WATERPROOF STOPPING	0.0770	0.004765
948	1	5 244476	M.O. TELATO CON CABINA	/LABOUR CHASSIS WITH CABIN COMPLETE	1.0000	1.590035
951	1	150060	M.O. CABINA FISSA SPI	/LABOUR CABIN ASSY	1.0000	0.352309
961	1	5 245020	M.O. SCATOLA DEP. ARIA	/LABOUR COMPLETE AIR CLEANER BOX	1.0000	0.064371
969	1	5 117135	M.O. PORTELLO COMPLETO	/LABOUR COMPL. ENGINE INSPECT. DOOR	1.0000	0.014610
971	1	117135	PORTELLO COMPLETO	/COMPL. ENGINE INSPECT. DOOR	1.0000	0.174537

\*\*\* Total \*\*\*

22.624103

			(Italian)	(English)		
174	4	04957	FUSIBILE	/25A FUSE	1.0000	0.004441
175	4	27424	OPACIFICATO	/GLASS	2.0000	0.003381
176	4	107850	TRASPARENTE	/SCREEN	1.0000	0.004186
182	4	107011	VERRO	/WINDSCREEN GLASS	1.0000	0.004186
183	4	107012	GUARNIZIONE	/PACKING	1.0000	0.165324
200	4	114379	TUBETTO	/TUBE	22.0000	0.007819
201	4	115261	TUBO BENZINA	/PIPE	1.0000	0.007345
202	4	115100	PARASPIRACCI	/SPUSH-GUARD	1.0000	0.026379
222	4	117771	PORTELLO	/KNOB FOR LEVER	1.0000	0.001531
231	4	117727	PORTELLO PER LEVA	/KNOB	1.0000	0.001560
235	4	124103	TUBETTO	/TUBE	4.0000	0.003756
255	4	125322	MORSETTINE	/FUSE HOLDER CLAMP BOARD	1.0000	0.027515
246	4	125970	TUBETTO ISOLANTE	/INSULATING TUBE	2.0000	0.000575
256	4	127750	CAVO ELETTRICO COMPL	/REMOTE CONTROL SWITCH CABLE	1.0000	0.046324
277	4	140007	SPERIALINA	/UNDERTRAY	1.0000	0.030748
284	4	142424	PARASPIRACCI	/MUDGUARD SPLASH-G.	2.0000	0.020375
283	4	142458	TUBETTO ISOLANTE	/INSULATING TUBE	1.0000	0.000472
291	4	145293	SPERIALINA SINISTRA	/PROTECTION	1.0000	0.023372
297	4	147475	TAPPELLO CABINA IN PV	/FLOOR MAT	1.0000	0.341150
310	4	175974	CINGHIA RET. PORTELLO	/STRAP	2.0000	0.005655
323	4	182676	PLANCIA PORTA STRUM.	/DASHBOARD	1.0000	0.365927
325	4	182853	GRUPPO CAVETTI	/CABLE HARNESS	1.0000	0.113525
328	4	183138	PARAFANGO ANT.	/MUDGUARD	1.0000	0.133030
341	4	190255	TAPPO CHIUSURA LONGH	/PLUG	8.0000	0.011846
409	4	84813	BUSTA	/ENVELOPPE	1.0000	0.001322
767	4	157226	BUSTINA	/ENVELOPPE	1.0000	0.000171
772	4	182150	PARAFANGO POST DS.	/R.H. REAR DRILLED MUDGUARD	1.0000	0.110428
773	4	182151	PARAFANGO POST SIN.	/L.H. REAR DRILLED MUDGUARD	1.0000	0.110428
790	4	182826	GRUPPO CAVETTI	/CABLE HARNESS	1.0000	0.056919
791	4	153925	GRUPPO CAVETTI	/CABLE HARNESS	1.0000	0.337074
811	4	185271	CAVETTO COMPLETO	/COMPL. ELECTRIC CABLE	1.0000	0.010690
812	4	185329	GR. CAV. CLACSON	/CABLE HARNESS	1.0000	0.022334
838	4	163661	VERRO FISSO	/GLASS	1.0000	0.006091
839	4	163663	GUARNIZIONE	/PACKING	1.0000	0.070869
853	4	163665	VERRO DEFLETTORE	/GLASS	1.0000	0.133276
854	4	163782	GUARNIZIONE POST.	/PACKING	1.0000	0.003812
855	4	163784	GUARNIZIONE	/GASKET	1.0000	0.003824
889	4	163661	VERRO FISSO	/GLASS	1.0000	0.006091
889	4	163663	GUARNIZIONE	/PACKING	1.0000	0.070869
903	4	163665	VERRO DEFLETTORE	/GLASS	1.0000	0.133276
904	4	163782	GUARNIZIONE POST.	/PACKING	1.0000	0.003812
905	4	163784	GUARNIZIONE	/GASKET	1.0000	0.003824
920	4	159377	CAVO ELETTRICO COMPL	/REMOTE CONTROL SWITCH CABLE	1.0000	0.007310
921	4	194333	ASTUCCIO P. FUSIBILI	/FUSE HOLDER	1.0000	0.014126
922	4	187883	VALVOLA FUSIBILE 25A	/25A FUSE	1.0000	0.000737
924	4	8174873420	NASTRO A DIS. 187942	/STRIP	0.0380	0.000916
970	4	109361	TAMPONE	/BUFFER	1.0000	0.002445

174	4	24957	FUSIBILE	/6A FUSE	6.0000	0.00444
175	4	27427	CORRUCIO	/PCAF	2.0000	0.01357
176	4	107950	TRASPARENTE	/SCREEN	1.0000	0.00415
182	4	107011	NETTO	/WINDSCREEN GLASS	1.0000	0.49913
183	4	109012	GUARNIZIONE	/PACKING	1.0000	0.16324
200	4	114279	TUBETTO	/TUBE	22.0000	0.00761
201	4	115364	TUBO BENZINA	/PIPE	1.0000	0.00734
202	4	116100	PARAFRUEZZI	/SPLUSH-GUARD	1.0000	0.02637
222	4	117271	PORTELLO	/KNOB FOR LEVER	1.0000	0.00157
231	4	117377	PORTELLO PER LEVA	/KNOB	1.0000	0.00156
235	4	124405	TUBETTO	/TUBE	4.0000	0.00976
238	4	125322	MORSETTIERA	/FUSE HOLDER CLAMP BOARD	1.0000	0.02761
245	4	125970	TUBETTO ISOLANTE	/INSULATING TUBE	2.0000	0.00378
256	4	127750	CAVO ELETTRICO COMPL	/REMOTE CONTROL SWITCH CABLE	1.0000	0.00324
277	4	140007	SEMBIALINA	/UNDERTRAY	1.0000	0.03032
284	4	142424	PARAFRUEZZI	/MUDGUARD SPLASH-G.	2.0000	0.02037
289	4	142452	TUBETTO ISOLANTE	/INSULATING TUBE	1.0000	0.00047
291	4	145265	SEMBIALINA SINISTRA	/PROTECTION	1.0000	0.03337
297	4	147475	TAPPETO CABINA IN PV	/FLOOR MAT	1.0000	0.36116
310	4	175974	CINGHIA RET. PORTELLO	/STRAP	2.0000	0.00566
323	4	182676	PLANCIA PORTA STRUM.	/DASHBOARD	1.0000	0.36527
325	4	182663	GRUPPO CAVETTI	/CABLE HARNESS	1.0000	0.11352
328	4	183138	PARAFANGO ANT.	/MUDGUARD	1.0000	0.13300
341	4	190255	TARCO CHIUSURA LONGH	/PLUG	8.0000	0.01184
407	4	84918	BUSTA	/ENVELOPPE	1.0000	0.00137
767	4	157226	BUSTINA	/ENVELOPPE	1.0000	0.00017
772	4	127150	PARAFANGO POST DS.	/R.H.REAR DRILLED MUDGUARD	1.0000	0.11042
773	4	182151	PARAFANGO POST SIN.	/L.H.REAR DRILLED MUDGUARD	1.0000	0.11042
790	4	182826	GRUPPO CAVETTI	/CABLE HARNESS	1.0000	0.05631
791	4	183025	GRUPPO CAVETTI	/CABLE HARNESS	1.0000	0.39707
811	4	185271	CAVETTO COMPLETO	/COMPL.ELECTRIC CABLE	1.0000	0.01063
812	4	185329	GR.CAV.CLAWSON	/CABLE HARNESS	1.0000	0.02233
830	4	163661	NETTO FISSO	/GLASS	1.0000	0.02603
835	4	163663	GUARNIZIONE	/PACKING	1.0000	0.07069
853	4	163665	NETTO DEFLETTORE	/GLASS	1.0000	0.13329
854	4	163782	GUARNIZIONE POST.	/PACKING	1.0000	0.00261
855	4	163784	GUARNIZIONE	/GASKET	1.0000	0.00324
898	4	163661	NETTO FISSO	/GLASS	1.0000	0.06409
899	4	163663	GUARNIZIONE	/PACKING	1.0000	0.07069
903	4	163665	NETTO DEFLETTORE	/GLASS	1.0000	0.13329
904	4	163782	GUARNIZIONE POST.	/PACKING	1.0000	0.00261
905	4	163784	GUARNIZIONE	/GASKET	1.0000	0.00324
920	4	153377	CAVO ELETTRICO COMPL	/REMOTE CONTROL SWITCH CABLE	1.0000	0.00731
921	4	184333	ASTUCCIO P.FUSIBILI	/FUSE HOLDER	1.0000	0.01412
922	4	187883	VALVOLA FUSIBILE 25A	/25A FUSE	1.0000	0.00073
924	4	174279420	MASTRO A DIS. 187942	/STRIP	0.0380	0.00016
970	4	103361	TAMPONE	/BUFFER	1.0000	0.00244

\*\*\* Total \*\*\*

3.332517

APP. NO. 601 PIANALE TUNISIA

Cod. F07A002615 1st Phase

ITEM No.	PHASE No.	DRAWING No.	DEGNOMINAZIONE (Italian)	DESCRIPTION (English)	QTY	PART TOTAL PERCENTAGE
2	1	M 245715	MONTAGGIO VEICOLI	/VEHICLE ASSEMBLING	1.0000	10.300739
5	1	A186082820	SIGILLANTE V84200	/ADHESIVE V84200	0.0350	0.004438
8	1	A186080000	MASTICE M5 DIAM.8	/ADHESIVE RUBBERFLEX	0.0430	0.005381
10	1	A186080000	MASTICE M5 DIAM.8	/ADHESIVE RUBBERFLEX	0.0120	0.001492
12	1	A186041440	ADESIVO MELLO 4144 I	/ADHESIVE	0.0180	0.002254
14	1	A186041440	ADESIVO MELLO 4144 I	/ADHESIVE	0.0045	0.000561
16	1	A186041440	ADESIVO MELLO 4144 I	/ADHESIVE	0.0035	0.000437
18	1	A186041440	ADESIVO MELLO 4144 I	/ADHESIVE	0.0050	0.000625
20	1	A185090000	GRASSO I.P.AUTOGRE.LZ	/IP ATHESIA L.Z.GREASE	0.0120	0.001492
22	1	A185090000	GRASSO I.P.AUTOGRE.LZ	/IP ATHESIA L.Z.GREASE	0.0120	0.001492
24	1	A185030000	GRASSO IP ATHESIA 3	/IP ATHESIA 3 GREASE	0.0030	0.000373
26	1	A185030000	GRASSO IP ATHESIA 3	/IP ATHESIA 3 GREASE	0.1600	0.019916
28	1	A185030000	GRASSO IP ATHESIA 3	/IP ATHESIA 3 GREASE	0.0220	0.002759
30	1	A185000000	OIL-27 IN FUSTI	/OIL-27 IN DRUM	0.0250	0.003125
32	1	A185022500	LIQUIDO SO.PER FRENT	/SPECIFIC OIL FOR BRAKE	0.2780	0.034382
34	1	A172103350	NASTRO X/213 GIALLO	/YELLOW BAND X/213	0.0240	0.002976
36	1	A186000550	SIGILLANTE M1724	/DOPE ADHESIVE 555	0.0020	0.000250
38	1	A186000550	SIGILLANTE M1724	/DOPE ADHESIVE 555	0.0510	0.006282
40	1	A186000550	SIGILLANTE M1724	/DOPE ADHESIVE 555	0.0024	0.000297
42	1	A185060000	GRASSO RHODORSIL	/RHODORSIL GREASE	0.0015	0.000188
173	1	105204	PORTATARGA	NUMBER PLATE HOLDER	1.0000	0.012559
201	1	S 119180	M.O.LEVETTA CON POMEL	/LABOUR LEVER WHIT KNOB	1.0000	0.024102
230	1	S 119926	M.O.LEVETTA CON POMEL	/LABOUR LEVER WHIT KNOB	1.0000	0.024102
240	1	125411	LEVA CON RETROMARCIA	/REV GEAR CONT LEV	1.0000	0.024102
278	1	140008	ELEMEN POST TENUTA	/REAR ELEMENT	1.0000	0.024102
376	1	232910	BATTERIA	/BATTERY	1.0000	0.024102
396	1	A195112020	DILUENTE 11202	/THINNER 11202	1.0670	0.033603
398	1	A195001520	ANTIRUGG.NERO F152	/BLACK ANTI-RUST F/152	0.1630	0.019916
400	1	A195001520	ANTIRUGG.NERO F152	/BLACK ANTI-RUST F/152	0.0500	0.019916
402	1	A195016320	WASH PRIMER 1632	/WASH PRIMER	0.0040	0.000497
404	1	A193250420	ANTI-RUGGINE IC 105	/ANTI-RUST	0.0130	0.001613
406	1	A191126600	SM.AZZURRO LAG.P8/11	/LIGHT BLEU TOP COAT PAINT P8/11	4.0780	0.050344
408	1	A184425010	CATAPORET.VERO	/CATAPHORETIC	2.2230	0.034014
412	1	117226	PEDALE GAS CON P. I	/THROTTLE PEDAL ASSY	1.0000	0.024102
420	1	S 117676	M.O.PARASOLE COMPLET	/LABOUR SUN VISOR	1.0000	0.013125
430	1	S 118436	M.O.SERBATOIO COMPLET	/LABOUR COMPLETE FUEL TANK	1.0000	0.016407
431	1	119034	SERBATOIO CON P. I.	/FUEL TANK ASSY	1.0000	0.020231
505	1	S 136397	M.O.SOSPENSIONE ANTER	/LABOUR COMPLETE FRONT SUSPENSION	1.0000	0.257587
620	1	S 140246	M.O.COMPL.SOSP.POSTER	/LABOUR COMPLETE REAR SUSPENSION	1.0000	0.343559
647	1	127902	DISCO P.GANAS CON P	/R.H.BRAKE JAVS PLATE ASSY	1.0000	0.020231
649	1	127903	DISCO P.GANAS CON P	/L.H.BRAKE JAVS PLATE ASSY	1.0000	0.020231
729	1	S 267176	M.O.TRIANGOLO SIN.COM	/LABOUR REAR WHEEL SUPPORT L.H.COMP	1.0000	0.151435
731	1	107920	TRIANGOLO SIN.SOSP.C	/REAR WHEEL SUPPORT L.H.ASSY	1.0000	0.020231
736	1	S 267177	M.O.TRIANGOLO DS.COMP	/LABOUR REAR WHEEL SUPPORT R.H.COMP	1.0000	0.151435
738	1	152016	TRIANGOLO DS.SOSP.CP	/REAR WHEEL SUPPORT R.H.ASSY	1.0000	0.050550
744	1	S 145393	M.O.CONVOGLIATORE COM	/LABOUR CONVEYOR	1.0000	0.027842
746	1	A186041440	ADESIVO MELLO 4144 I	/ADHESIVE	0.0012	0.000149
748	1	A185090000	GRASSO I.P.AUTOGRE.LZ	/IP ATHESIA L.Z.GREASE	0.0005	0.000062
751	1	S 102036	M.O.DIAPHRAGMA	/LABOUR DIAPHRAGM	1.0000	0.024102
752	1	S 102037	M.O.ALBANO COMPLET	/LABOUR COMPL.SHAFT	1.0000	0.024102

REP. M. S. C. I. P. I. A. L. E. I. T. A. L. I. A.

Doc. N. 384000301 4th Page

ITEM No.	PHASE No.	DRAWING No.	DENOMINAZIONE (Italian)	DESCRIPTION (English)	QTY	PART TOTAL PERCENTAGE
102		24907	FUSIBILE	/5A FUSE	6.0000	0.00454
109		27429	CAPPUCINO	/CAP	2.0000	0.015025
122	4	56982	M.O. TAPPO SERBATOIO	/PLASOUR FUEL TANK PLUG	1.0000	0.007653
129	4	20126	PANNELLO	/PANEL	1.0000	0.007603
130	4	4137804000	CALEA METALLICA 8620	/EARTH BRAD 8620S	0.0080	0.000751
131	4	56584	TAPPO SERBATOIO	/FUEL TANK PLUG	1.0000	0.004071
132	4	56909	FOZZETTO	/CUP	1.0000	0.003309
133	4	56910	LINGUETTA	/BLADE	1.0000	0.002725
134	4	56911	FONDELLO	/CUP	1.0000	0.001914
155	4	103337	CAVETTO ELETTRICO	/CABLE	2.0000	0.003381
161	4	104801	TUBETTO	/TUBE	1.0000	0.004071
162	4	104842	TUBETTO ISOLANTE	/INSULATING TUBE	1.0000	0.005461
167	4	107952	TRASPARENTE	/SCREEN	1.0000	0.004055
174	4	109011	VETRO	/WINDSCREEN GLASS	1.0000	0.005775
175	4	109012	GUARNIZIONE	/PACKING	1.0000	0.005131
195	4	114279	TUBETTO	/TUBE	14.0000	0.005328
196	4	115864	TUBO BENZINA	/PIPE	1.0000	0.002207
197	4	116103	PARASPRUZZI	/SPLUSH-GUARD	1.0000	0.0029623
205	4	116366	CAVETTO	/CABLE	2.0000	0.004508
215	4	117271	POMELLO	/KNOB FOR LEVER	1.0000	0.001757
221	4	119927	POMELLO PER LEVA	/KNOB	1.0000	0.001752
225	4	124403	TUBETTO	/TUBE	2.0000	0.005482
230	4	125930	TUBETTO ISOLANTE	/INSULATING TUBE	2.0000	0.002649
238	4	127619	MORSETTIERA	/TENSION BOARD	1.0000	0.003305
253	4	140007	GREMBIALINA	/UNDERTRAY	1.0000	0.004534
259	4	142424	PARASPRUZZI	/MUDGUARD SPLASH-S.	2.0000	0.002769
261	4	142659	TUBETTO ISOLANTE	/INSULATING TUBE	1.0000	0.002530
264	4	144151	CAVO ELETR. COMPLETO	/CABLE	1.0000	0.002633
266	4	145293	GREMBIALINA SINISTRA	/PROTECTION	1.0000	0.002156
270	4	149474	TAPPETO CABINA IN PVC	/CARPET	1.0000	0.004381
285	4	175074	CINGHIA RIT. PORTELLO	/STRAP	2.0000	0.005354
287	4	175795	PLANCIA P. STRUMENTI	/INSTRUMENTS PANEL	1.0000	0.004275
295	4	187150	PARAFANGO POST. DS.	/R.H. REAR DRILLED MUDGUARD	1.0000	0.004007
296	4	187151	PARAFANGO POST. SIN.	/L.H. REAR DRILLED MUDGUARD	1.0000	0.004007
300	4	182583	GRUPPO CAVETTI	/CABLE HARNESS	1.0000	0.0047135
301	4	182584	GRUPPO CAVETTI	/CABLE HARNESS	1.0000	0.0055789
307	4	185794	PARAFANGO ANT.	/FRONT MUDGUARD	1.0000	0.005511
314	4	190235	TAPPO CHIUSURA LONGHER	/PLUG	2.0000	0.003278
375	4	84818	BUSTA	/ENVELOPPE	1.0000	0.001532
395	4	127633	GRUPPO CAVETTI	/CABLE HARNESS	1.0000	0.003431
636	4	157226	BUSTINA	/ENVELOPPE	1.0000	0.000192
705	4	182585	GRUPPO CAVETTI	/CABLE HARNESS	1.0000	0.0020051
727	4	194895	CAVO AT. COMPLETO	/H.T. CABLE	1.0000	0.004214
751	4	163663	GUARNIZIONE	/PACKING	1.0000	0.0027195
765	4	163665	VETRO DEFLETTORE	/GLASS	1.0000	0.0049607
766	4	163782	GUARNIZIONE POST.	/PACKING	1.0000	0.002896
767	4	163784	GUARNIZIONE	/GASKET	1.0000	0.001032
800	4	163661	VETRO FISSO	/GLASS	1.0000	0.004204
801	4	163663	GUARNIZIONE	/PACKING	1.0000	0.0027195
815	4	163665	VETRO DEFLETTORE	/GLASS	1.0000	0.0049607
816	4	163782	GUARNIZIONE POST.	/PACKING	1.0000	0.002896
817	4	163784	GUARNIZIONE	/GASKET	1.0000	0.001032
850	4	159377	CAVO ELETTRICO COMPL.	/REMOTE CONTROL SWITCH CABLE	1.0000	0.002207

LISTA DEI COMPONENTI  
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 Cap. 333A03000 - 2nd and 3rd Phase

ITEM	PHASE	QUANTITA'	TERMINAZIONE	DESCRIZIONE	UNITA'	VALORE TOTALE
NO.	NO.	NO.	Italiano	English		PERCENTUALE
140	1	109801	AVVOLGEB	/PROPELLER	1.0000	0.006042
164	1	103074	PORTAFRAN.	/WHEEL FLUTE HOLDER	1.0000	0.017001
169	2	103707	RAMINELLA	/WHEEL BRACKET	1.0000	0.015556
176	2	107064	PARAPOLVERE	/DUST COVER COVER BEARING	1.0000	0.004748
202	1	116470	CONDOTTA	/TUBE	1.0000	0.054771
214	1	117820	LEVERIA	/LEVER	1.0000	0.022449
227	1	119730	LEVERIA	/LEVER	1.0000	0.022449
227	1	125411	LEVA COM. RETROMARCIA	/REVERSE GEAR CONTROL LEVER	1.0000	0.017650
255	1	140005	ELEMENTO POST.TENUTA	/REAR ELEMENT	1.0000	0.004748
304	1	155436	SCIOGLIENO	/YOK	2.0000	0.017549
309	1	145386	STAFFA	/BRACKET	1.0000	0.004502
310	2	185912	SEDILE COM COP	/SEAT ASSY	1.0000	0.322174
311	1	135247	SCHIENALE	/SEAT BACK	1.0000	0.147258
377	2	108503	BELLETTA CRI	/BUFFER LIMIT STOP ASSY	1.0000	0.012746
385	1	8245	VITE	/SCREW	2.0000	0.005575
325	1	117631	PIASTRINA	/BRACKET	1.0000	0.005554
387	1	117630	BELLETTA	/CLIP	1.0000	0.003725
388	1	117634	CONELLO	/ADJUSTER SCREW	1.0000	0.017308
389	1	141030	GUARNIZIONE	/PACKING	1.0000	0.002553
390	2	141424	PARASOLE	/SUN SCREEN	1.0000	0.045774
399	2	115222	TUBO DI SPIATO	/PIPE	1.0000	0.001152
401	2	135943	SERBATOIO CON F.I.	/FUEL TANK ASSY	1.0000	0.655431
424	1	103037	DIAPHRAGMA	/DIAPHRAGM	1.0000	0.017845
507	1	141255	ATTACCO TAMBURO CRI	/BUFFER ATTACHMENT	1.0000	0.141370
547	2	117425	PORTELLO COMPL.	/COMPL. ENGINE INSPECT. DOOR	1.0000	0.325451
572	2	222303	SCUTTA	/ENGINE SUPP.	1.0000	1.345272
600	2	117102	PIANALE COMPL.	/OPEN BOX	1.0000	4.552742
612	3	140727	ATTACCO PER RETR.	/BRACKET	2.0000	0.096285
615	3	152271	LEVA FRENO A MANO	/HAND BRAKE LEVER	1.0000	0.111645
616	3	153571	PORTA DX CRI	/R.H. DOOR ASSY	1.0000	0.955160
617	2	153672	PORTA SIN. CRI	/L.H. DOOR ASSY	1.0000	0.940376
620	3	115384	PROF. GIUNTA TEL. C42.	/PROFIL	2.0000	0.003245
621	3	105703	PADIGLIONE	/CEILING	1.0000	0.124516
624	3	4040104010	NASI. P04 0.6X1200	/STRIP P04 0.6X1200	4.3500	0.096342
625	1	142732	ORDINATA PAPAER. COMPL	/WINDSHIELD PIM	1.0000	0.941539
626	2	153345	PARETE POST. COMPLETA	/REAR PANEL	1.0000	1.031773
627	2	137201	PINFORZO LAT. SUP. D. CRI	/R.H. LATERAL UPPER REINFORC. ASSY	1.0000	0.032735
628	2	503050	PINFORZO LAT. SUP. S. CRI	/L.H. LATERAL UPPER REINFORCEN. ASSY	1.0000	0.032736
629	2	500052	TELAIO COMPL. SCUDO CRI	/CHASSIS WITH SHIELD ASSY	1.0000	3.025470
*** Totale ***						70.845739

REPERTE DI RICAMBI PER VEICOLO  
.....  
COD. N39400001 1st Phase

ITEM NO.	PHASE NO.	DRAWING NO.	DENOMINAZIONE (Italian)	DESCRIPTION (English)	Q.T.	PART TOTAL PERCENTAGE
7		M 135047	MONTAGGIO VEICOLO	VEHICLE ASSEMBLY	1.0000	7.542678
8		A186002300	SIGILLANTE VB4200	/ADHESIVE VB4200	0.0336	0.002491
9		A186000000	MASTICE M5 DIAM.8	/ADHESIVE RUBBERFLY	0.0432	0.003273
10		A186000000	MASTICE M5 DIAM.8	/ADHESIVE RUBBERFLY	0.0120	0.000904
12		A186041440	ADESIVO NELLO 4144 I	/ADHESIVE	0.0139	0.001031
14		A186041440	ADESIVO NELLO 4144 I	/ADHESIVE	0.0045	0.000340
16		A186041440	ADESIVO NELLO 4144 I	/ADHESIVE	0.0055	0.000419
18		A186041440	ADESIVO NELLO 4144 I	/ADHESIVE	0.0050	0.000380
20		A186000000	GRASSO I.P. AUTOGR.L.Z.	/IP ATHESIA L.Z. GREASE	0.0120	0.000904
23		A186000000	GRASSO I.P. AUTOGR.L.Z.	/IP ATHESIA L.Z. GREASE	0.0120	0.000904
24		A186000000	GRASSO IP ATHESIA 3	/IP ATHESIA 3 GREASE	0.1800	0.012312
26		A186000000	OIL-2T IN FUSTI	/OIL-2T IN DRUM	0.0250	0.001875
28		A186002500	LIQUIDO SPEC PER FRENE	/SPECIFIC OIL FOR BRAKE	0.2780	0.014612
30		A186000550	SIGILLANTE M1724	/DOPE ADHESIVE 555	0.0020	0.000153
32		A186000550	SIGILLANTE M1724	/DOPE ADHESIVE 555	0.0450	0.003165
34		A186000550	SIGILLANTE M1724	/DOPE ADHESIVE 555	0.0024	0.000165
126		56800	TAPPO SERBATOIO	/FUEL TANK PLUG	1.0000	0.002057
156		103978	BATTERIA	/BATTERY	1.0000	0.723797
159		104501	ANGOLARE	/PROTECTION	1.0000	0.002087
163		105204	PORTATARGA	/NUMBER PLATE HOLDER	1.0000	0.002057
214		5 119180	M.O.LEVETTA CON POMELL	/LABOUR LEVER WHIT XROS	1.0000	0.004608
220		5 119226	M.O.LEVETTA CON POMELL	/LABOUR LEVER WHIT XROS	1.0000	0.004608
226		125411	LEVA CON RETROMARCIO	/REV GEAR CONT LEV	1.0000	0.001179
234		140005	ELEMEN POST TENUTA	/REAR ELEMENT	1.0000	0.004540
258		A186200040	DILUENTE 19363004	/THINNER 19363004	0.0300	0.001230
260		A186112020	DILUENTE 11202	/THINNER 11202	1.0630	0.039924
262		A186194540	ALLUMINIO 974544	/ALUMINIUM PAINT	0.6030	0.000745
264		A186001520	ANTIRUGGINE NERA F152	/BLACK ANTI-RUST F/152	0.0700	0.011480
266		A186001520	ANTIRUGGINE NERA F152	/BLACK ANTI-RUST F/152	0.1800	0.023581
268		A186016320	VASH PRIMER 1632	/WASH PRIMER	0.0040	0.000208
270		A186230420	ANTIRUGGINE 10 105	/ANTI-RUST	0.0130	0.001278
272		A186126500	SM. AZZ. LAGU P8/11	/LIGHT BLEU TOP COAT PAINT P8/11	4.0760	0.532961
274		A186425010	CATAFORET. NERO	/CATAPHORETIC	2.1750	0.376816
276		108208	SELLETTA CON P.I.	/BUFFER LIMIT STOP ASSY	1.0000	0.000545
278		2 116579	M.O.RUOTA COMPLETA	/LABOUR COMPL. WHEEL	4.0000	0.132378
284		5 117476	M.O.PAPASOLE COMPLETO	/LABOUR SUN VISOR	1.0000	0.014738
288		5 174503	M.O.SERBATOIO COMPLETO	/LABOUR COMPLETE FUEL T	1.0000	0.018424
400		136948	SERBATOIO CON P.I.	/FUEL TANK ASSY	1.0000	0.075027
403		5 140246	M.O.COMPL.SOSP.POSTERIO	/LABOUR COMPLETE REAR S	1.0000	0.385835
430		127902	DISCO P.GANAS CON P.I.	/R.H.BRAKE JAWS PLATE ASSY	1.0000	0.002259
452		127903	DISCO P.GANAS CON F.I.	/L.H.BRAKE JAWS PLATE ASSY	1.0000	0.002259
512		5 267176	M.O.TRIANGOLO SIN.COMP	/LABOUR REAR WHEEL SUPP	1.0000	0.170056
514		107990	TRIANGOLO SIN.SOSP.CPI	/REAR WHEEL SUPPORT L.H.ASSY	1.0000	0.028337
518		5 267177	M.O.TRIANGOLO DS.COMP	/LABOUR REAR WHEEL SUPP	1.0000	0.170056
521		152016	TRIANGOLO DX.SOSP.CPI	/REAR WHEEL SUPPORT R.H.ASSY	1.0000	0.056766
563		5 140258	M.O.SOSPENSIONE ANTERIO	/LABOUR COMPLETE FRONT	1.0000	0.283242
678		5 145333	M.O.CONVIGLIATORE COMP	/LABOUR CONVEYOR	1.0000	0.031321
680		A186041440	ADESIVO NELLO 4144 I	/ADHESIVE	0.0012	0.000144
682		A186000000	GRASSO I.P. AUTOGR.L.Z.	/IP ATHESIA L.Z. GREASE	0.0005	0.000034
695		5 109076	M.O.DIAPHRAMMA	/LABOUR DIAPHRAGM	1.0000	0.005527
699		5 109530	M.O.ALBERO COMPLETO	/LABOUR COMPL.SHAFT	1.0000	0.018424
702		161276	ATTACCO TAMPONI CON PI	/BUFFER ATTACHMENT	1.0000	0.002259
730		A186002300	SIGILLANTE VB4200	/ADHESIVE VB4200	0.0030	0.001281
732		A186002300	SIGILLANTE VB4200	/ADHESIVE VB4200	0.0005	0.000071

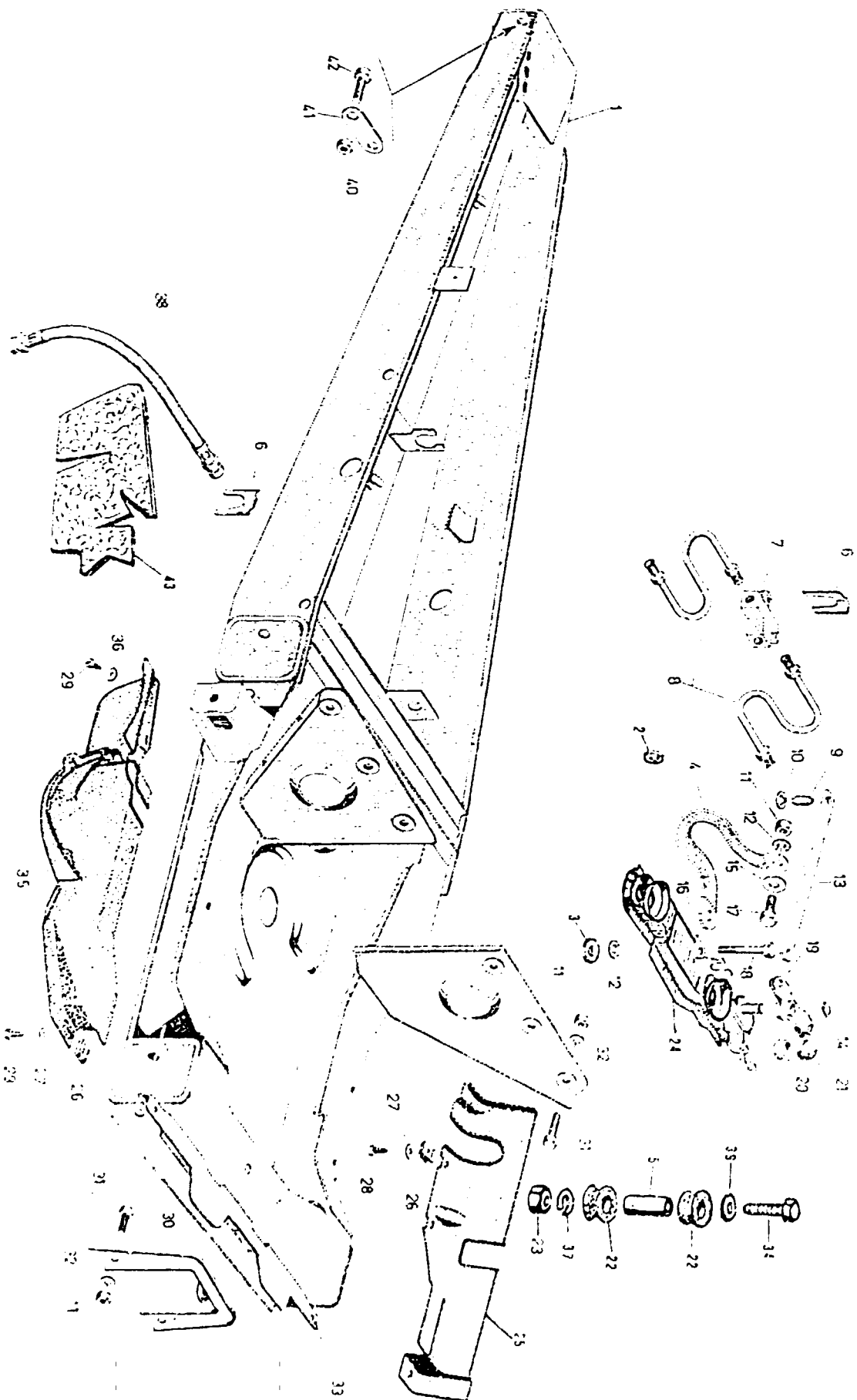
REP. NO. SUI. FOMALE ITALIA

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ITEM No	PHASE No	DRAWING No	DENOMINAZIONE (Italian)	DESCRIPTION (English)	QTY	PART TOTAL PERCENTAGE
734	1	4158000550	SIGILLANTE M1724	/ADHESIVE 555	0.0070	0.000452
735	1	5 143656	M.O.DEFLETTORE BS.COM	/LABOUR P.M. DEFLECTOR C	1.0000	0.019757
736	1	4158000900	SIGILLANTE VE4200	/ADHESIVE VE4200	0.0050	0.002201
737	1	4158000900	SIGILLANTE VE4200	/ADHESIVE VE4200	0.0005	0.000071
738	1	4158000550	SIGILLANTE M1724	/ADHESIVE 555	0.0070	0.000452
803	1	5 162667	M.O.DEFLETTORE SIN.COM	/LABOUR L.M. DEFLECTOR C	1.0000	0.039787
804	1	5 185514	M.O.MANUBRIO COMPLETO	/LABOUR COMPLETE HANDLE	1.0000	0.078203
854	1	5 185147	CORPO MANUBRIO	/HANDLEBAR BODY	1.0000	0.014259
859	1	5 195702	M.O.ASTUCCIO P.FUSIONE	/LABOUR ASSY OP.FOR COM	1.0000	0.005527
866	1	5 117135	M.O.PORTELLA COMPLETO	/LABOUR COMPLE.ENGINE IN	1.0000	0.027436
868	1	117135	PORTELLO COMPLETO	/COMPLE.ENGINE INSPECT.DOO	1.0000	0.196055
871	1	222035	SLITTA SOPR.MOTORE CFI	/ENGINE FRAME	1.0000	0.072827
874	1	5 245230	M.O.SCATOLA DEF.ARIA C	/LABOUR COMPLETE AIR CL	1.0000	0.072850
885	1	500076	M.O.TELAI COMPLE DI CA	/LABOUR COMPLETE CHASSI	1.0000	0.810222
899	1	119102	PIANALE COMPLETO	/COMPLETE OPEN BOX BODY	1.0000	3.895392
901	1	182675	TELAIO COMPLE DI PORTE	/COMPLETE CHASSIS	1.0000	3.895392
903	1	182675	M.O.TELAI COMPLE DI PO	/LABOUR COMPLETE CHASSI	1.0000	0.251426
905	1	4158005000	STUCCO IMPERMEAB MIC	/BOSTON WATERPROOF STOPPING	0.0770	0.003331
919	1	132650	M.O.TELAI COM CABINA	/LABOUR CHASSIS WITH CA	1.0000	1.515937
922	1	159066	M.O.CABINA COM PI	/LABOUR CABIN ASSY	1.0000	0.361710
*** Total ***						24.342971

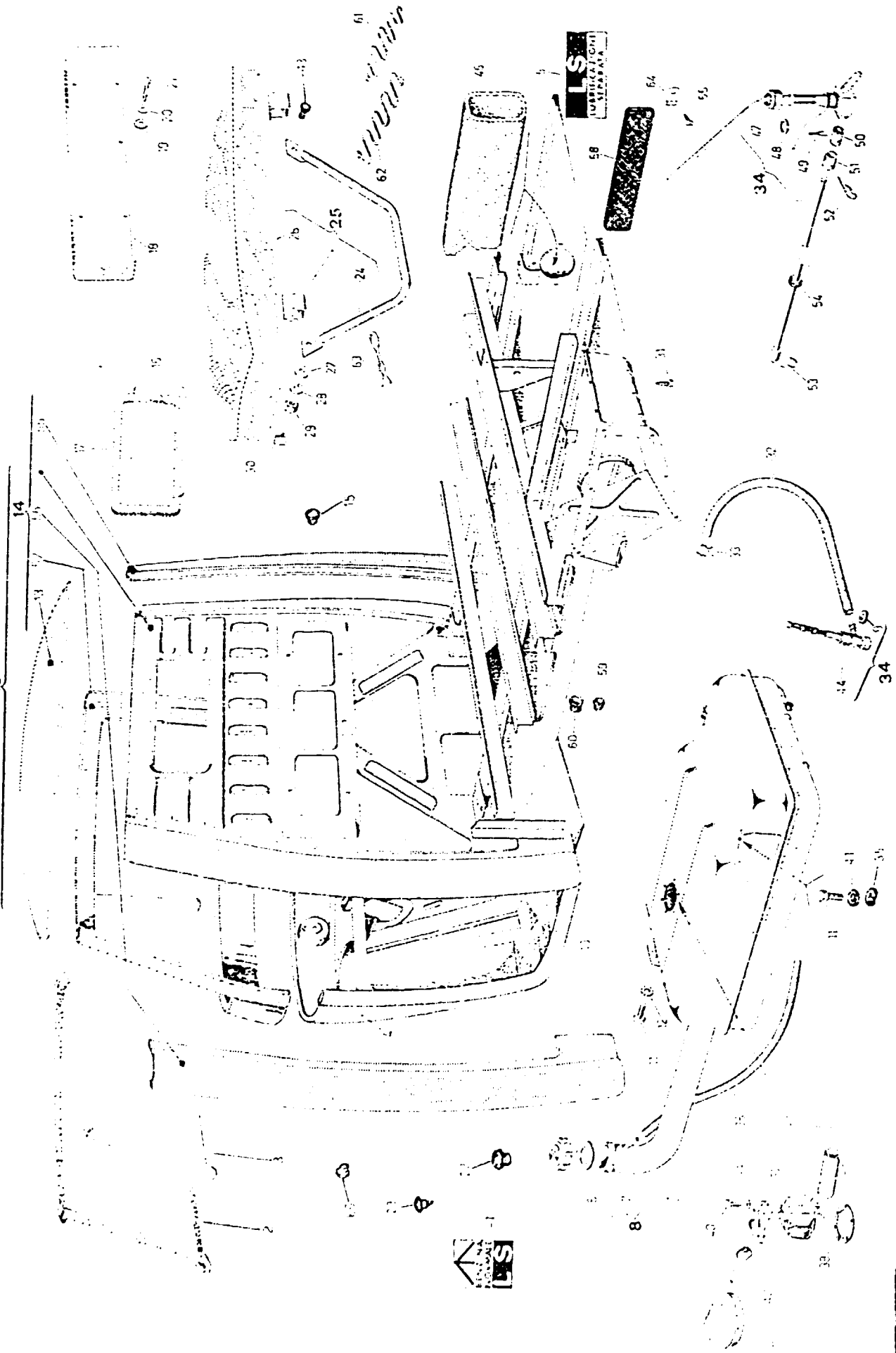


I. VI SLITTA SOPPORTO MOTORE — SUPPORT MOTEUR — ENGINE SUPPORT — SOPORTE MOTOR

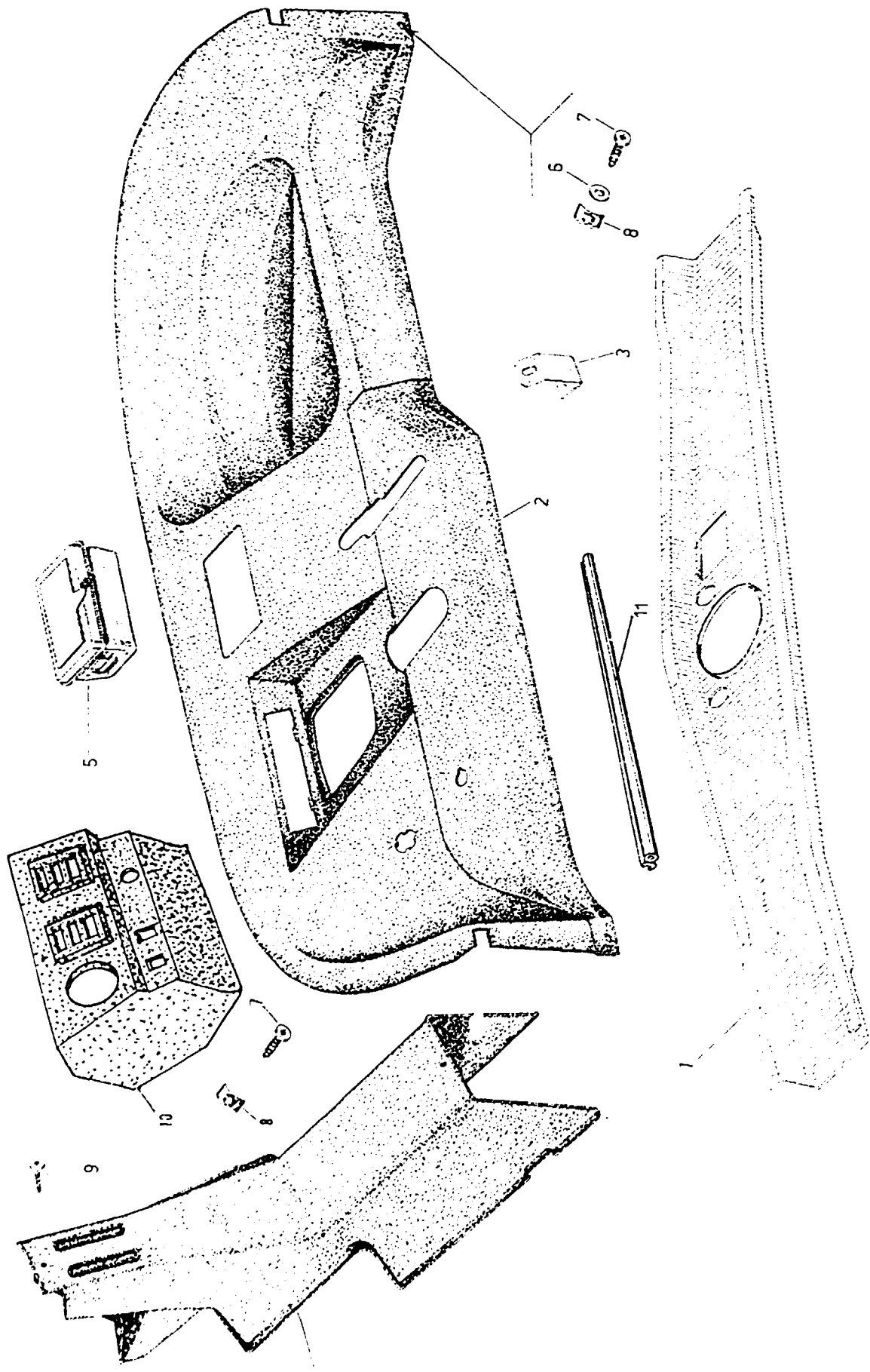


I. VII TELAIO - SERRATOIO - SEDILE - RESERVOIR - CHASSIS - FRAME - FUEL TANK - SEAT - CHASSIS - DEPOSITO - ASIENCO

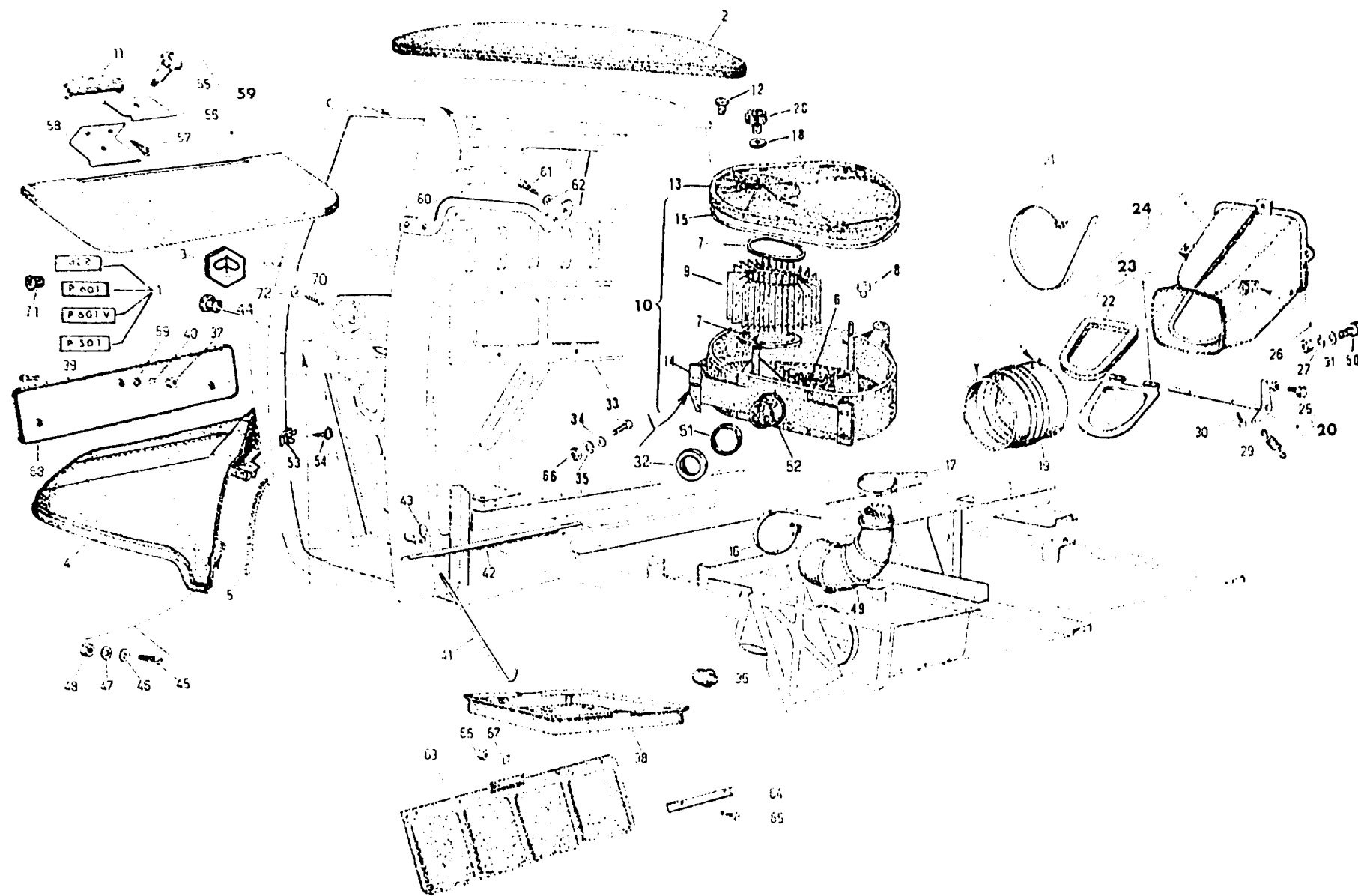
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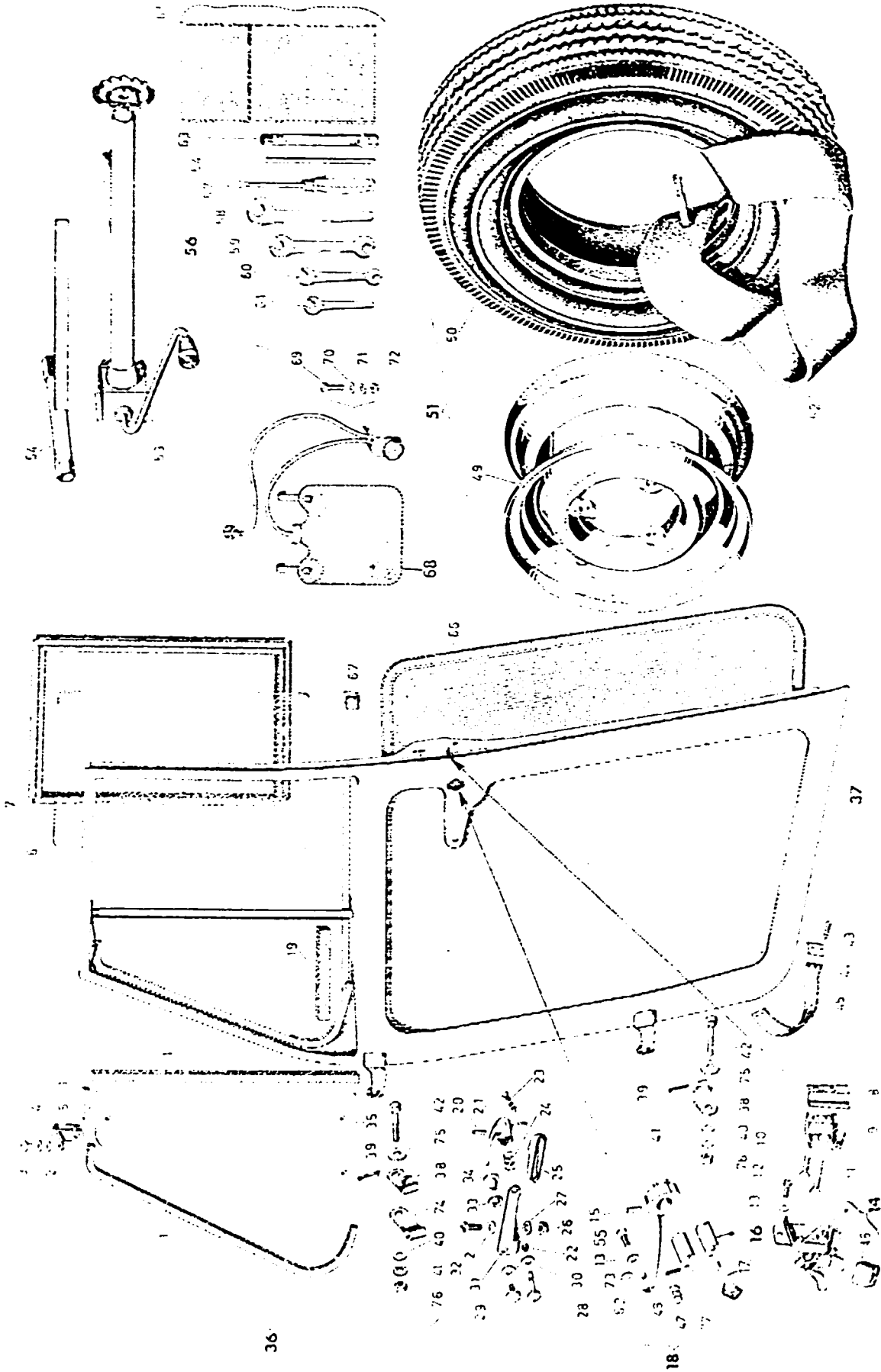
VIII PARTI INTERNE DELLA CABINA --- PARTIES INTERIEURES DE LA CABINE --- INNER PARTS OF CABIN --- PARTES INTERNAS DE LA CA-  
BINA



IX CONVOGLIATORE - DEPURATORE ARIA — CONVOYEUR - FILTRE A AIR — CONVEYOR - AIR CLEANER — CANALIZACION AIRE -  
DEPURADOR AIRE



I. XI PORTE · UTENSILI · RUOTA · PORTES · OUTILS · ROUE · DOORS · TOOLS · WHEEL · PUERTAS · HERRAMIENTAS · RUEDA



ATTACHMENT 4  
LIST OF VISITED LOCAL SUPPLIERS

### ATELIERS REUNIS

1. GENERAL: "Ateliers Reunis" is a limited Company (Société Anonyme à Responsabilité Limitée) - Equity: 350.000 DT - Address: Choutrana/Tunis Nord 1 2036 La Soukra - Tel.765095 - Fax. 764560
2. FIRM'S ACTIVITY: Production of bolts, nuts, screws and rivets. Other small mechanical items like washers are also produced. Products are in accordance with European standards.
3. PLANTS AND EQUIPMENT: A dozen of modern wire-drawing machines are available in the firm shop.
4. ORGANIZATION: No particular information has been collected on organizational schemes. The quantity and quality of products to be supplied do not require special working organization.
5. FIRM'S SUITABILITY TO SUPPLY PIAGGIO/SAT JOINT-VENTURE: "Ateliers Reunis" has a medium quality product range, suitable plants and sufficient know-how to produce the most part of nuts and bolts for SAT-APE. An initial assistance for product and quality setting-up seems however necessary.

### ECHAPPEMENTS INDUSTRIELS

1. GENERAL: "Echappement Industriel" is a limited company. Address: KM 13 - Industrial Zone Tunis - Tel. 482811 - Telex 16054
2. FIRM'S ACTIVITY: Manufacturing of mufflers and exhaust pipes. The production covers the whole range of vehicles circulating in Tunisia. The produced components are suitable both for new vehicle components and for spare parts.
3. PLANTS AND EQUIPMENT: Equipment for sheet working (cutting, rolling, surface treating, holing and spot welding) are available.
4. ORGANIZATION: Shop lay-out and organizational schemes seem suitable for the foreseen production.
5. FIRM'S SUITABILITY TO SUPPLY PIAGGIO/SAT JOINT-VENTURE: Firm's products are at the normal standard foreseen by European vehicle manufacturers. No problem for APE components manufacturing.

### HIDROMECA

1. **GENERAL:** "HYDROMECA" is a private company with an Equity of 700.000 DT Address: Industrial Zone Charguia - 2 Rue n. 14-Tunis Tel 787422 - 788490 - Fax 786252 - Telex 13056
2. **FIRM'S ACTIVITY:** Manufacturing of hydraulic jacks for bucket and semi bucket, axial pistons, gears, pumps. Metal working and surface treating is also performed.
3. **PLANTS AND EQUIPMENT:** The shop is equipped with high quality machinery suitable for precision metal working (numerical control lather). A Chromium plating line is available. A dimension and quality control laboratory is present.
4. **ORGANIZATION:** The high quality of products is supported by adequate organization and quality assurance procedures. The shop is clean, the lay-out is efficient.
5. **FIRM'S SUITABILITY TO SUPPLY PIAGGIO/SAT JOINT-VENTURE:** The firm has been visited as a possible supplier of small mechanical parts and eventually of more relevant parts, such as engine components or suspensions. As the HYDROMECA production is highly specialized, APE components could not easily be included in the product range. However the firm's know-how is good and specific agreement could be reached, in a more advanced phase of integration.

### PLASTIQUE (CORPS CREUX)

1. **GENERAL:** "Plastique - Corps Creux" is a limited company. Address: Rue La Roussi Hataded 23 - Magrine - Tel. 295719 - Telex 16054
2. **FIRM'S ACTIVITY:** Production of a large range of hollow plastic items starting from small bottles and vessels for cosmetics to cylindrical liquid reservoirs of 50 litres.
3. **PLANTS AND EQUIPMENT:** Both main technologies for plastic shaping are applied: "roll-shaping" and "blow-shaping". A set of several plants differently sized are available among which some automatically performing.
4. **ORGANIZATION:** Quality product is suitable to the required standard. No information were available for organization and productivity analysis.



5. **FIRM'S SUITABILITY TO SUPPLY PIAGGIO/SAT JOINT-VENTURE:** The firm is not particularly specialized for automotive components manufacturing and has been chosen to test the suitability of the average Tunisian producer of plastic components. Several small parts, such as small tanks, cylindrical bodies, cups, etc. could easily be realized by this type firm.

#### RESSORTS TUNISIENS

1. **GENERAL:** "Ressorts Tunisiens" is a limited company. Address: Industrial Zone Charguia - Tel. 786218 - Fax 782401
2. **FIRM'S ACTIVITY:** Springs and elastic component production
3. **PLANTS AND EQUIPMENT/ORGANIZATION:** The visit has been limited to the commercial office. Product samples have been examined.
4. **FIRM'S SUITABILITY TO SUPPLY PIAGGIO/SAT JOINT-VENTURE:** The collected information is not sufficient to evaluate the firm's suitability to supply the joint-venture.

#### STAMINOX

1. **GENERAL:** Staminox is a private company with a hundred of workers. Address: Rue de Textil/Tunis Zone Industriale 2033 Megrine - Tel.299611- telex 13934 TPR
2. **FIRM'S ACTIVITY:** Production of pots and other kitchen utensils for domestic and public restauration (hotels and restaurants). Specific sheet working (cutting, bending, surface polishing, drawing and redrawing, welding) is also possible for third parties.
3. **PLANTS AND EQUIPMENT:** A set of pressing units are available for sheet drawing: 4 mechanical eccentric presses (20 t, 60 t, 2x120 t) - 3 mechanical presses (160 t) - 2 oledynamic presses (300 t).- Up to 50 cm of depth on steel or aluminium plate for cylindrical pots manufacturing (approximately 30 cm of diameter) are realized with such pressing equipment. Several tool working machines are available, such as lathes, cutters, surface treating and polishing units, welding machines.

4. **ORGANIZATION:** The poor space inside the firm shop has penalized the lay-cut rationality. The production scheme seems confused and not well organized. Single production blocks are however efficient with an accurate manpower employment. The possibility to work for third parties is indeed limited.
5. **FIRM'S SUITABILITY TO SUPPLY PIAGGIO/SAT JOINT-VENTURE:** The available pressing power is not suitable for the drawing of the APE main parts; dimensions and depths to be reached are excessive. However some small pieces (for example oil and fuel tanks) could be manufactured and some sub-working operations as sheet cutting and polishing could be realized. With regards the insufficient work space, shop expansion should be foreseen in this case. A real strong point of Staminox is connected to its proximity to the future SAT shop.

#### COMFORT AUTOMOBILE

1. **GENERAL:** "Comfort Automobile" is a limited company. Address: Route de M'Saken - 4013 Messadine (Sousse) - Tel. 3377 - Telex 30640
2. **FIRM'S ACTIVITY:** Production of vehicle interiors: door and roof panels, upholstery for vehicle seats, carpeting, moquettes, etc.
3. **PLANTS AND EQUIPMENT:** A complete set for plastic and cloth sheets cutting, shaping, sewing and streaming for joints of plastic sheet to plastic panel is also available.
4. **ORGANIZATION:** The working activity is not performed in a single industrial building but in several distinct bodies, part of which are originally designed for civil use. The lay-out and production cycle is consequently very confused. The labour organization is indeed very accurate and efficient.
5. **FIRM'S SUITABILITY TO SUPPLY PIAGGIO/SAT JOINT-VENTURE:** Company's strong point is its experience in supplying car-panels to STIA. The quality of products is in accordance with European standards. No problem to supply SAT vehicle.

## STIA 2

1. **GENERAL:** "STIA 2" is a private limited company. Address: Industrial Zone of Sousse
2. **FIRM'S ACTIVITY:** Assembly of sedan-cars and trucks. The APE-PIAGGIO vehicles commercialized by SAT (50-100 year) are also assembled by STIA. Before 1985 Citroen-VISA, Renault R5 and 205 were assembled with a production capacity of 5.000 vehicles /year. In the second half of 1980, the economic crisis of Maghreb discouraged the manufacturing of these models. Presently only some hundreds of RENAULT trucks are assembled, starting from the imported classic.
3. **PLANTS AND EQUIPMENT:** The shop is equipped for the complete vehicle assembly starting from the imported CKD. 5 assembly lines are installed and, due to an overdimensioning of the shop, a large space is available for further expansion. The painting line is an efficient and modern plant suitable to assure a good quality standard. This line the only one existing in Tunisia and will be used for the painting of the SAT production.
4. **ORGANIZATION:** The operational activity is presently reduced but the company has the organizational know-how for a large vehicle production.
5. **FIRM'S SUITABILITY TO SUPPLY PIAGGIO/SAT JOINT-VENTURE:** STIA is the present assembler of APE vehicles. In the future body painting will still be executed in the firm shop. The choice of shifting the vehicle assembly in Tunis is dictated by marketing reasons.

## STJ

1. **GENERAL:** "STJ - Société Tunisienne de Jantes" is a limited company with an equity of 455,000 dinar, employing 50 workers. Address: Route d'Akouda 4021 Kalaa Seghira - Sousse - Tel. 31466 - Telex.30776
2. **FIRM'S ACTIVITY:** Production of automotive components: exhaust pipes, fuel and oil tanks. Production is addressed to STIA vehicles and is presently limited. For these reasons STJ has less work and a good part of the production plant is unutilized.

3. **PLANTS AND EQUIPMENT:** STJ has a new and efficient equipment for sheet drawing, rolling, holing, spot and flash welding. A 600 t single effect press is available as well as an automatic plate bending and welding plant for wheel rims.
4. **ORGANIZATION:** The shop is large and rationally organized. The lay-out is efficient.
5. **FIRM'S SUITABILITY TO SUPPLY PIAGGIO/SAT JOINT-VENTURE:** STJ is already qualified for supplying European vehicles. The present weakness seems to be in the reduced activity that could affect the firms soundness in the near future.

Tunisian companies considered as possible suppliers

- S.T.J. - Société Tunisienne des Jantes  
Route d'Akunda 4021 Kalaa Seghiro - Sousse  
Tel. 03-31466  
Telex 30776
- STAMINOX  
Rue du Textile Z.I. 2033 Megrine  
Tel. 299611/940
- S.G.I. - Société Générale Industrielle  
Route de Sousse km 3,2 Djebel Djellone  
1009 El Quendia  
Tel. 495700  
Telex 15.248 Gindus
- La Confort S.A.  
Bir El Kamaà 2013 Ben Anors Tunis  
Tel. 383326  
Telex 13734
- Magriplast  
23 Aeroport Ariavia  
BP 53.1080 CEAEX  
Tel. 718284  
Fax 719322
- Les Ateliers Reunis  
Choutrana - Tunis Nord  
2036 La Soukra  
Tel. 765095  
Fax 764560
- Tunisie Ressort  
Z.I. Charguia I Rue 8600 n. 58  
Tel. 286882  
Fax 216.1.782401
- SEPIM S.A.  
20-22 Avenue Tareb Mahiri - 2014 Megrine - Tunisia  
Tel. 297794  
Telex 14915  
Fax 297923
- SOCOMENA - S.té Tunisienne de Constructions et de Réparations  
Mécaniques et Navales  
BP 10 Meuzel Bourguiba  
Tel. 02/60554  
Telex 21016
- Manufacture Tunisienne de Bullonerie MATUBO  
21-7080 Meural Jemil - Biserte

Tel. 02/40175/40869  
Fax 02/40815

- A.C.M.G. - Ateliers de Constructions Métalliques et Maintenance de  
Gabes  
PB 84 GABES  
Tel. 05/22900/72200  
Telex 40976

- A.M.I. - Les Ateliers Mecaniques Industriels  
Route de l'Aeroport - Qued Chaabouri - 3071 SFAX  
Tel. 04/43841  
Telex 40793

- SACEM - Société de Constructions Electromecaniques  
Z.I. Charguia 2035 Tunisi  
Tel. 110033  
Telex 15142

- Le Contehone Industrielle de Tunisi  
Z.I. 2015 Le Knam  
Tel. 730536  
Telex 15087

- Tecoverre  
4 Rue de Marseille - Tunisi

- Confort Auto Car  
Route de M' Saken  
4013 Messadine (Tunisia)  
Tel. 03/58014  
Telex 30640/33277

- Maghreb Commandes  
128 Av. de la Republique  
8020 Soliman - Tunisia  
Tel. 01/430240  
Telex 01/430640

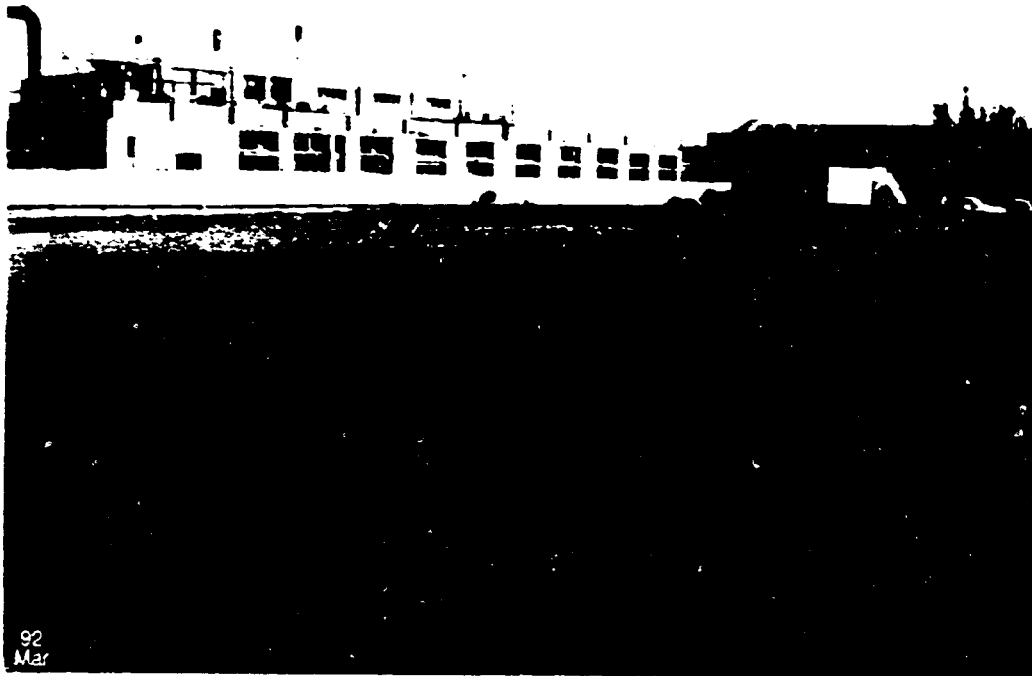
- Plastic Tunisie  
Rue Laroussi Hateded 23 Megrine  
Tel. 295719  
Telex 16054

- MECAFLEX  
km 13 Zone Industrielle d'Er Zabra 2034 BP n. 13  
Tel. 01/482811  
Telex 13180

- Tunisie Flexible  
Rue n. 13 Cherguia Tunis

ATTACHMENT 5  
INDUSTRIAL BUILDING

THE INDUSTRIAL FACTORY OF PIAGGIO - SAT JOINT - VENTURE



1. The external area of the factory. In this place a storage facility for base material, semifinished and finished vehicles will be realised.



2. The picture shows the covered building extensions realised on the side of the main industrial building. They are presently used as auxiliary equipment storage. The windows of the front and those immediately after the corner correspond to the office area.



INDUSTRIAL FACTORY OF PIAGGIO - SAT JOINT - VENTURE

Pictures of the internal area of the industrial building; The present ISOFRIGO assembling - line (for refrigerated plants) is shown.

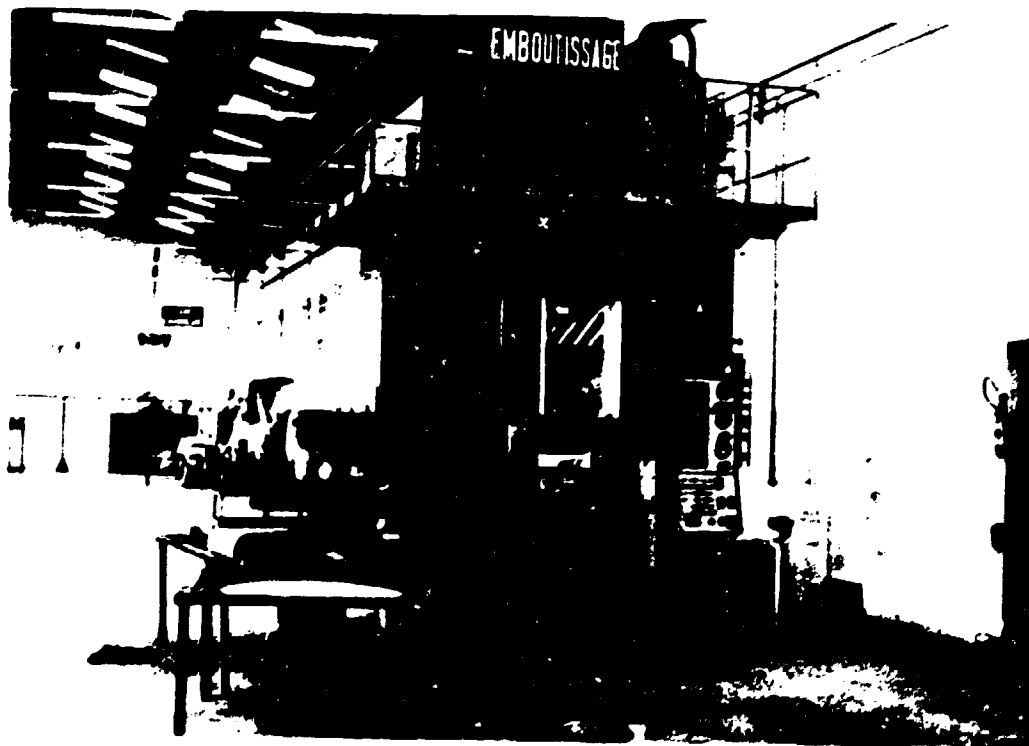


TUNISIAN SUPPLIERS OF THE PIAGGIO - SAT JOINT - VENTURE

The following pictures show the production plants of the best organised potential suppliers, among those visited.



1. Hydromeca - shop - Tunis



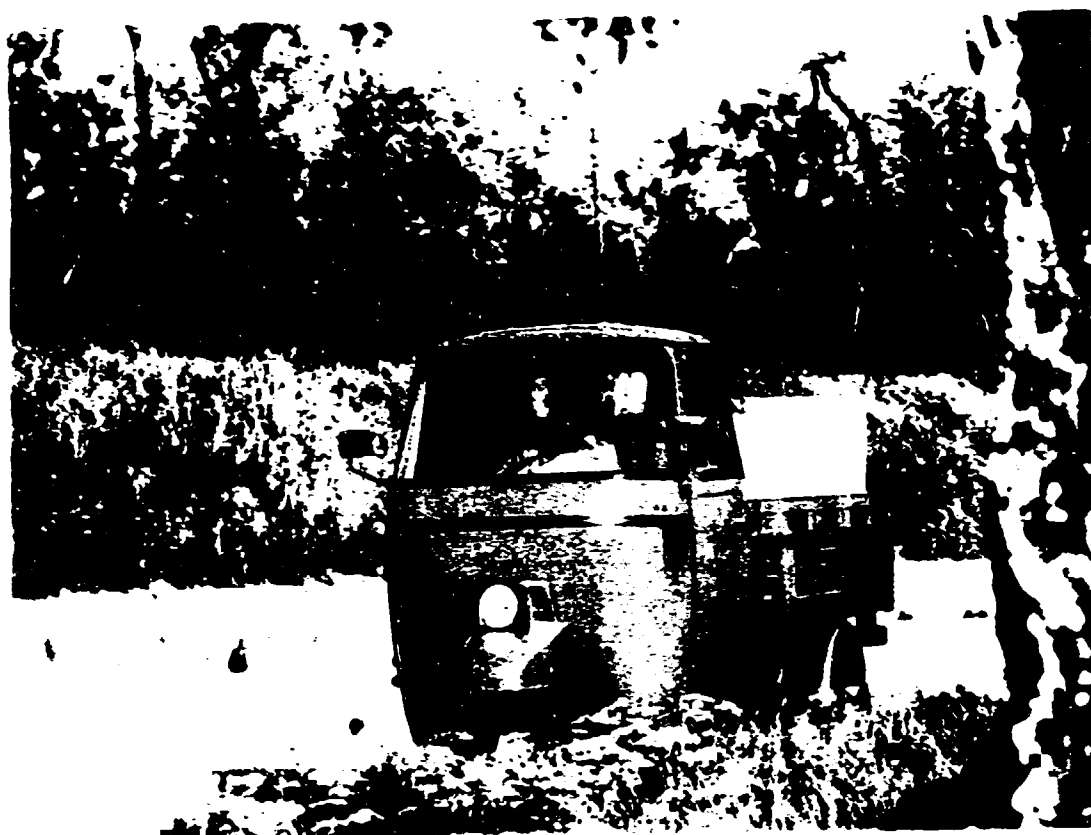
2. STJ - shop - Sousse



3. Les Ateliers Reunis - Shop - Tunis

ATTACHMENT 6  
APE VEHICLE MODELS AND COMPETITORS' MODELS

THE PRODUCTS OF PIAGGIO SAI JOIRI VENTURI

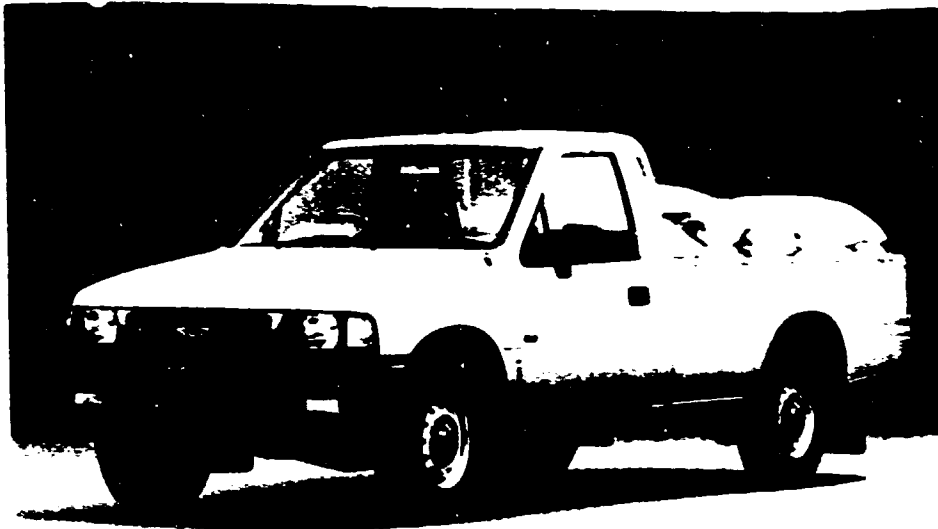


1. APE 50!



2. APE 50!

THE MAIN COMPETITORS CATEGORIES OF THE PIAGGIO-SAT JOINT VENTURE



1. Pick-up transportation vehicle. (In the picture an ISUZU model)



2. Four-wheeler, small vehicle for transportation. (In the picture a special SUZUKI model).



3. Local-produced four-wheeler, small vehicle for transportation. (in the picture a King Car model).



**FIDPI CONSULTING S.p.A.**

Una Società del Gruppo 

00187 ROMA - Via Scilla, 66 - Tel. (06) 44.57.341 - Telefax (06) 44.57.077 - Telex 626469  
20121 MILANO - Via Senato, 7 - Tel. (02) 79.51.98 - 76023625 - 76022526 - Telefax (02) 781280  
1050 BRUXELLES - Avenue Louise, 326 - Bte 46 - Tel. (00322) 64.04.500 - Tx: 23419 IMIBRUX