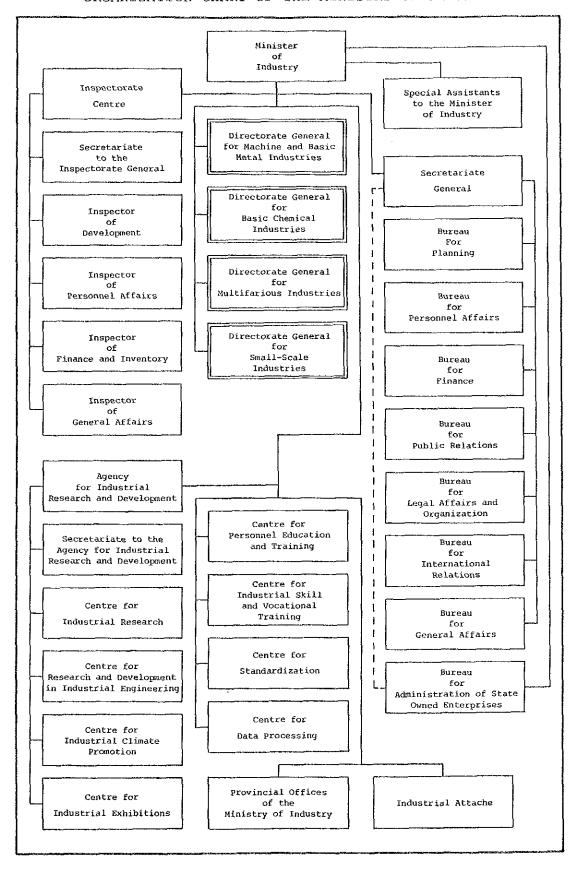
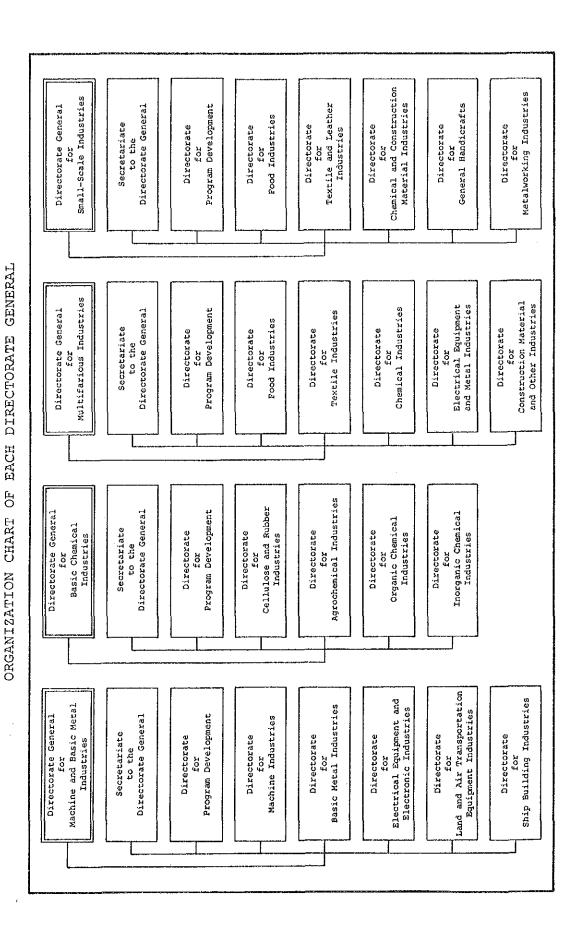
### ANNEX V BACK DATA FOR DELETETION PROGRAM

Figure ANX V-1 ORGANIZATION CHART OF THE MINISTRY OF INDUSTRY



Note: See next page for sub-organization chart of the each Directorate General (D.G.).



To see the second

AV-2

#### LIST OF COMPANIES APPOINTED TO PRODUCE MACHINE TOOLS

No.	Names of Companies	Kinds of Machines	Maximum Specifications (mm, Ton)	Totals of Annual Production (Units)
1	PT (Persero) IMPI	Lathes	Centre distance 1500 Centre height 200	400
2	PT PIMSF	<ol> <li>Drill combination fries machine.</li> </ol>	Table size 240 x 600 Bit diameter 32	500
		2. Stationary drilling machine	Bit diameter 13	2,100
		3. Plate rolling machine	Plate size 2500 x 3	500
		4. Plate folding machine	Plate size 2500 x 2	400
		5. Shearing machine	Plate size 1270 x 2	400
		6. Punching machine	Pressure 3	
			Plate thickness 3	200
		7. Press folding machine	Pressure	100
		8. Column drilling machine	Bit diameter ø 30	200
3	PT SARANA IDEA UTAMA	1. Lathes	Centre distance 1500 Centre height 180	300
		2. Shearing machine	Plate size 1270 x 2	400
		3. Plate rolling machine	Plate size 2500 x 3	400
		4. Plate folding machine	Plate size 2500 x 2	400
		5. Pipe bending machine	Pipe size diameter 50	400
4	PT SUMBER BAHAGIA	l. Lathes	Centre distance 1500	300
			centre height 180	
		<ol><li>Stationary drilling machine</li></ol>	Bit diameter 13	600
		<ol> <li>Forging machine</li> </ol>	Pressure 30	100
		4. Punching machine	Pressure 3	200
			Plate thickness 3	300
5	PT CIPTA KARYA	Stationary drilling machine	Bit diameter 13	400
6	PT MEDAN GERAK JAYA	1. Forging machine	Pressure 250	150
-		2. Shearing machine	Plate size 250 x 5	150
		3. Stationary drilling machine	Bit diameter 13	500
		4. Press folding machine	Pressure 80	150
		<ol><li>Knee type freis machine</li></ol>	Size 250 x 1200	100
7	PT BINTANG MAS INDUSTRI	1. Forging machine	Pressure 250	1,000
•	FI BIRIANG PAO INDUSTRI	2. Lathes	Centre distance 150	2,000
			Centre height 180	300
	nm ottava	1 Ossins markins	Material diameter 180	750
8	РТ ОУАНА	<ol> <li>Sawing machine</li> <li>Surface grinding machine</li> </ol>	Table size 220 x 500	50
		3. Column drilling machine	Bit diameter Ø 30	75
	•	S. Colema Linday, and and and		
9	PT TOOLS INDONESIA	l. Lathes	Centre distance 150	300
			Centre height 180	200
		2. Shearing machine	Plate size 1270 x 2	300
		3. Stationary drilling machine	Bit diameter 13	1,200
		4. Plate folding machine	Plate size 2500 x 2	200
		5. Plate rolling machine	Plate size 2500 x 3	200
		6. Knee type Freis machine	Table size 250 x 1200	200
		7. Surface grinding machine	Table size 220 x 500	200
10	PT KARYA PRIMA	l, Sawing machine	Material diameter 180	100
~ •	AMMINIA AMMINI	2. Stationary drilling machine	Bit diameter 13	200
		3. Forging machine	pressure 150	100
	PT (Persero) PINDAD	1. Lathes	Centre distance 1500 Centre height 180	320
11			centre nerant 100	
11		2 Knop type Proje machine	Table size 2500 v 120	250
11		<ol> <li>Knee type Freis machine</li> <li>Column drilling machine</li> </ol>	Table size 2500 x 120 Bit diameter 30	250 100

Source: Decree of the minister of industry No. 1/M/SK/1/1985 dated Jan. 4 1985

### DELETION PROGRAM FOR MACHINE TOOLS (1) (LATHE)

Center distance: less than 1600 mm, Center height: Max 180 mm

(1985) 1/

Leg Cover: Cabinet leg, Rear leg, Front leg, Chip pan, Sheet cover, Aluminium cover

(1986) 1/

Reverser rod, Driver: Lead screw, Bed, Racks, Feed rod, Rear support Swivelling tool slide assy: Tool post slide, Tool holder Others: Electro motor, Lever assy

(1987)

Transmission system: Speed gear, shafts, Reverser gears Apron assy: Case, Saddle, Cross spindle

Headstock assy: Case gear

Tailstock assy: Case, Shaft, Racksgear

Others: Cooling system, Brake system, Copying attachment, Bearing, Bolt & nut, Screw, Spring, Coolant pump assy, Electric/electronic components

(Components importable until 1987)
Chuck assy, Main spindle for headstock assy

Note: 1/ The schedule is divided into first and second half of the year in the decree.

Source: The decree of the Minister of industry No. 28/M/SK/1/1985 dated January 21, 1985.

### DELETION PROGRAM FOR MACHINE TOOL (2) (KNEE TYPE PRESS MACHINE)

Table size: 1,200 mm x 250 mm

(1985) <u>1/</u>

Column assy: Base, Cover Main drive: Pulley

Feed drive : Case Knee : Frame

Table : Table, Chiptray, Coolant tank

Other : Panel box

(1986) <u>1/</u>

Main spindle : Supporting arm
Main drive : Electro motor
Feed drive : Extendable shaft
Knee : Guide slide

Cross : Saddle, Guide slide

(1987)

Main spindle : Gear assy
Main drive : Gear assy

Feed drive : Gear assy, Work gear assy

Others : Hydrauric component, Cooling system, Electric/electronic

component, Bearing

(Components importable until 1987)

Spindle for main spindle, Coolant pump assy

Note: 1/ Same as Table A-5.2.

Source: Same as Table A-5.2

## DELETION PROGRAM FOR MACHINE TOOL (3) (SURFACE GRINDING MACHINE/COLUMN TYPE BORING MACHINE)

#### SURFACE GRINDING MACHINES (Table size : 220 mm x 500 mm)

(1985) 1/

Table, Leg, Sliding head, Coolant tank, Panel box

(1986) 1/

Electro motor, Column, Bearing

(1987)

Hydraulic component, Cooling system, Electric/electronic component

(Components importable until 1987)

Spindle, Coolant pump assy

#### COLUMN TYPE BORING MACHINE

(1985) <u>1/</u>

Handle, Hand wheel, Lever, Bush, Pin, Cover, Pulley

(1986) 1/

Base, Table, Column, Electro motor

(1987)

Bearing, Electric/electronic component

(Components importable until 1987)

Spindle, Coolant pump assy

Note: 1/ Same as Table A-5.2.

Source: Same as Table A-5.2

(OTHER THAN LATHES, KNEE TYPE FREIS MACHINES, SURFACE GRINDING MACHINES AND COLUMN TYPE BORING MACHINE)

CN	Item	Specification	The Following Components Can Be Imported As Long As They Are Not Yet Locally Made.
Ħ	Sawing machines	Size of objects: 180 mm	Electric component
N	Table type boring machines	Diameter of bits: 13 mm	Complete hydraulic components (Cooling pumps, Electric components, Bearings)
m	Plate folding machines	Width of plates: 2500 mm Thickness of plates: 2.5 mm	Hydraulic components Electric components
ঝ	Pipe bending machines	Diameter of pipes: 25 mm	Hydraulic components Electric components
, ru	Forging machines	Work pressure: 250 ton	Complete hydraulic components, Electric components
9	Shearing machines	Width of plates: 1200 mm Thickness of plates: 2 mm	Complete hydraulic components, Bearing
7	Rolling machines	Length of plates: 2500 mm Thickness of plates: 2.5 mm	Electric components, Bearing
∞	Punching machines	Pressure: 3 ton Thickness of plates: 3 mm	Electric components
Q	<pre>Drill combination freis machines</pre>	Table size: 240 mm x 600 mm Diameter of bits: 32 mm	Electric components, Spindles, Bearings
10	Press brake machines		Electric components Hydraulic components

Attachment to the decree of the Minister of industry No. 28/M/SK/1/1985 dated January 21, 1985 Source:

### DELETION PROGRAM FOR AGRICULTURE MACHINERY (1) (HAND-OPERADTED TRACTOR)

(Since Sept. 1, 1983)

Frame and body: Hitch attachment (O), Front frame (I), Fender (I), Belt cover and accessories (I), Connecting pipe (I), Handle frame (I), Guide-speed change (I), Steering handle (I), Handle Cover (I), Front weight (O)

Engine: Engine assy (O)

Wheel and brake system: Wheel complete (0), Tire (0), Brake assy (0)

Rotary: Rotary frame (I), Rotary cover (I), Rotary blade(I)

(Since Sept. 1, 1984)

Transmission: Pulley(O) - Shaft, main change, tension
Lever (O) - Stand control, Main change, Steering clutch,
Dual shift, Main clutch

Rotary: Rotary transmission assy (I)

(Since Sept. 1, 1985)

Transmission: Transmission assy (1)

Note: (I) = In-House (O) = Out-House

Source: Decree of the minister of industry No. 199/M/SK/6/1983 dated June 9, 1983

### DELETION PROGRAM FOR AGRICULTURE MACHINERY(2) (MINI TRACTOR)

(Since Jan. 1, 1984) Frame & body: Seat(0), Step(I), Hitch attachment(0), Towing attachment (0), Support frame(I), Front weight(O), Brackets(I) Engine: Muffler(0), Fuel line(0), Battery(0) Wheel & brake system: Tire(0), Wheel rim(0) Hydraulic system and power lift: Hydraulic tank(0) Electric wiring harness: Wire harness(0) Implement: Lever(0), Bottom plow(0), Harrowing wheel(0), Ridger(0), Disk plow(0), Floating strake(0) Rotary: Rotary frame(I), Rotary cover(I), Rotary blade (I) (Since Jan. 1, 1985) Frame & body: Bonnet (I), Side/back cover (I), Grill (I), Fender (I) Engine: Engine assy(0), Radiator assy(0), Air clearner (0) Fuel filter (O), Fuel tank (O), Hose(O) Wheel rim(0), Brake cover(0), Pressure piping(0), Wheel & Brake system: Break rod(0) Hydraubic system & power Lift: Power lift(0)\* (Since Jan, 1, 1986) Transmission & Rear drive axle: Transmission(I)\*, Final drive axle(I)\*, Final drive axle(I)\*, Power take off(I)\* Front axle(0)\*, Track rod(0)\*, Steering box(0)\*, Steering wheel(0)\*, Wheel bub(0)\*, Knuckle & link arm(0)\* Wheel & Brake system: Brake shoes(0), Brake drum(0) Hydraulic system & power lift: Piping(I), Control volve assy(I)\*, Hydraulic pump assy(I)\* (Since Jan. 1, 1987) Transmission and rear drive axle; Machining shall be made to the following components as Out-House manufacturing; -Transmission assy, Rear drive axle assy, Final drive assy, Power take off assy.

Note: (I) = In-House

(O) = Out-House

\* = Assembling shall be the responsibility of the factory.

Source: Same as Table A-5.6

#### DELETION PROGRAM FOR CONSTRUCTION EQUIPMENT(1) (CRAWLER BULDOZER)

```
(1984)
Upper structure
                      : Counter weight(0)
                      : Blade block(I)
Attachment
Frame for attachment : Draw bar (0)
Guards & Covers : Gards(0), Bonnet & side cover(engine enc)(0),
                          Sweeper(0)
Protective structure : Rops/Fops(0)
                      : Battery(0)
Others
(1985)
                      : Under cover & floor plate(0)
Upper structure
Attachment : Ripper(fram & teeth)(0), Towing winch(0)
Frame for attachment : C frame(1), Frunnion(0), Arm & brace(0)
Tank : Fuel tank(0)
Attachment
                    : Fenders(0)
Guards & covers
Protective structure : Operators seat(0), Dash board(0)
Handle & linkage : Handle/Lever(0), Linkage(0)
                      : Swamp truck shoe(0)
Truck shoe
                      : Hoses(0), piping(Small)(0)
Hydraulic system
                      : Radiator & guards(0), Cable wiring(0), Fan &
Others
                          pulley(0), Muffler(0), Exhaust pipe(0)
(1986)
Frame (under structure) : Equalizer bar (0)
                          : Frame for operator seat (0)
Upper structure
                         : Stay & yoke (0)
Frame for attachment
                           : Cover (I)
Truck frame
                           : Front idler (I), Idler support & guide (I),
Idler
                              Idler rod /shaft (I), Pins & bushing (O)
                        : Yoke (0), Pilot & cover (0), Shaft (0), Piston (0)
: Carrier roller (0), Truck roller (0), Support (0)
Truck adjuster
Truck roller
                          : Cylinders (O), Piping (large) (O)
Hydraulic system
                           : Filter & strainer (0), Air cleaner (0)
Others
(1987)
                      : Cutting edge, bracket & end bit for blade(0)
: Frame(I), Truck roller guard(I)
Attachment
Truck frame
                      : Recoil spring(0)
Truck adjuster
                       : Sprocket
Sprocket
                       : Truck shoe(0)
Truck shoe
                       : Truck link(0)
Truck link
                       : Control valve(0), Hydraulic tank & valve(0),
Others
                          Engine(0)
(1988)
Frame(Under structure) : Main frame(I)
                          : P.T.O.(O), Transmission(O), Torque flow/
Power train
                             converter/clutch(0), Gears(Steering/drive,
                              final drive)(O)
                          : Hydraulic pump(0)
Hydraulic system
Note: (I) = In-House
```

(0) = Out-House

The schedule is devided into first and second half of the year in the decree.

Source: Decree of the minister of industry NO. 138/M/SK/4/1984 dated April 23, 1984

PRODUCTION CAPACITY OF THREE LICENSED COMPANIES

Construction Equipment	PT. Komatsu Indonesia	PT. Natra Raya	PT. Triguna Utama Machinery
Crawler bulldozer (100-320HP)	555 Unit	410 Unit	į
Hydraulic excavator (90-108HP)	75 Unit	f	350 Unit
Motor grader	90 Unit	165 Unit	1
Wheel loader (100-980HP)	75 Unit	160 Unit	•

Source: Informasi potensi Industri, periode OKTOBER 1984; MOI

### DELETION PROGRAM FOR ELECTRICAL EQUIPMENT (1) (POWER GENERATOR UPTO 5 KVA)

(Since Apr. 1, 1984)

Rotor : Enamel wire (0), Armatur clampe (I), Washer (O)

Stator : Enamel wire (0), Protection cover (I), Grommet (0), Bolt & nut (0),

Washer (0), Lebel (0)

(Since Apr. 1, 1985)

Rotor : Shaft & shaft key (0), Fan (0), Bearing flange (0)

Stator : Rangka/yoke (0), End bracket (0), Bearing cover (I), Brush (0),

Rocker arm (O), Cotton/tetoron tape including for Rotor (O)

(Since Apr. 1, 1986)

Rotor : Rotor core (O), Slip ring (O), Commutator (O), Snap ring (O),

Press board (0)

Stator : Stator core (0), Brush holder (0)

Note: (I) = In-House

(0) = Out-House

Source: Decree of the minister of industry No. 475/M/SK/9/1983

### DELETION PROGRAM FOR ELECTRICAL EQUIPMENT (2) (ONE PHASE-CLASS 2KWH METER)

(Since July 1, 1984)

Rotor and registor: Rotor element, Sekrup Penguat untuk bantalan lincir atas, Sekrup penguat untuk bantalan lincir bawah,
Light load adjusting plate, Peratatan penyetelan taktor daya

Meter box: Meter back box, Meter front box, Tutup terminal, Gesket,
Jendela kaca, Sekrup dengan lobang segel, Papan nama, Diagram
pengawatan, Cover fixing insert, Back plate, Riveting bracket,
Retaining ring, Speed-nut/stopper-ring

Bagian block terminal: Block terminal, Terminal pengetesan, Batang hubung singkat, Terminal holder, Terminal plate, Sekrup dan washer untuk semua terminal

Laim-laim: Sekrup dan washer lainnya, Baut & mar

(Since July 1, 1985)

Rotor and registor: Sepatu maknit, Piringan rotor, Rangka elemen penggarak, Alat pen catat enersi listrik

(Since July 1, 1986)

Rotor and registor: Poros rotor, Pasak ulir (worm)

Source: Decree of the minister of Industry No. 140/M/SK/4/1984

#### DELETION PROGRAM FOR COMMERCIAL CAR

I: 3/4 - 1 ton
II:  $2 - 2\frac{1}{2}$  ton Category III:  $3\frac{1}{2} - 5 \text{ ton}$ IV: Multi-purpose case car (Jeep) V: Simple commercial car (KBNB) (Since Jan. 1, 1978) Decoration (I, II, III), Bus body (I, II, III) (Since Jan. 1, 1979) Oil/air filter (I, II, III), Plug (I, II, III) (Since Jan. 1, 1980) Tire, Paint, Battery, Shock absorber, Leaf spring, Safety glass, Radiator, Muffler, Tail pipe, Seat, Seat frame, (Since Jan. 1, 1984) Wheel rim, Rear body, Fuel tank, Cabin, Chassis and Frame, (Since Apr. 1, 1984) Rubber on body and chassis, Radiator hose, Air cleaner hose, Air filter hose, Bonnet cable, Throttle/acceleration cable, Hand throttle cable, Clutch cable, Head lining/Roof insulator, Door trim, Sun Visor, Mat floor, Label/Sticker/Name plate, Orna, Wiring harness, Mud gard, Grip assist, Brake tube (I, II, IV, V), Fuel tube (I, II, IV, V), Pull handle (I, II, IV, V), Bezel/cover door (I, II, IV, V) (Since Jul. 1, 1984) Brake drum, Axle/Propeller shaft (I, V) (Since Sept. 1, 1984) Grille of metal (I, V), Press parts (Brackets, Clips clamps, Reinforced and others) (I, II, V), Chassis parts ( -do- ) (I, II, IV), Lenses of rear combination lamps (I, V) (Since Jan. 1, 1985) Engine (Gasoline/Diesel), Axle/Propeller shaft (II, III, IV) (Since Jul. 1, 1985) Brake system (Since Jan. 1, 1986)

Source: No. 307/M/SK/8/1976, No. 168/M/SK/9/1979, No. 38/DJ-LD/Ed/1/1980, No. 1269/DJ-LD/X1/1983 No. 371/M/SK/9/1983, No. 1195/DJ-LD/X/1983

Transmission, Steering system, Clutch system

## NEW INVESTMENT FOR SECONDARY DELETION PROGRAM (COMMERCIAL CAR)

Item	
Engine	P.T. Toyota Engine Indonesia (Toyota)
(Gasoline/diesel)	P.T. Colt Engine Mfg (Mitsubishi)
	P.T. Daihatsu Engine Mfg Indonesia (Daihatsu)
	P.T. Suzuki Engine Industry (Suzuki)
	P.T. Mesin Isuzu Indonesia (Isuzu)
	P.T. Hino Indonesia Mfg (Hino)
	P.T. Star Motor (Mercedes Benz)
Transmission	P.T. Wahana Eka Paramitra (Toyota Technical assist)
Axle/propeller shaft	P.T. Inti Ganda Perdana (Mitsubishi Technical assist) P.T. Spicer Indonesia (Spicer)
Steering system	Every Company: Arrangements in House Manufacturing
Clutch system	P.T. Darma Salana Purdana (Aishin Technical Assist) n.a. (Daikin Technical Assist)
Brake system	P.T. Tri Dharma Wisesa (Akebono Technical Assist)

DELETION PROGRAM FOR MOTOR CYCLE AND SCOOTER (BODY AND ELECTRIC COMPONENTS)

1980	1981	1982	1982
Oil Measuring Cup/	Front Fork Side Cap	Head Lamp/Head Light	Speedo & Tachometer Holder
Measuring Glass	Bolts & Nuts	Stopper/Tail Lamp/	Reflector
Fuel Filter	Spokes & Nipples	Rear Combination Lamp	Tail Lamp Bracket
Under Seat Cover	Mirror	Tail Light Unit/Tail	Brake Shoe & Lining
Muffler Bracket	Air Filter	Light Brake	Seat Clamp
Pillion Footrest Rubber	Speedometer Cable	Pillion Box Lamp/	Air Cleaner Cap
/Rear Cover/Pillion	Tachometer Cable	Winker Indicator	Front Luggage Carrier Rod
Step Rubber		Lamp/Warning Lamp	Frame Grip/Side Grip
Fuel Tank Side Packing	(7 Items)	Flasher/Relay/Timer	Standing Handle
Tire Flap		Switch	Stripping Tapes/Graphic Set
Front Engine Hanger	000	Switch (Main, Stop Lamp)	Emblem/Name Plate
Chassis Reinforcement	1302	Ignition Coil	Upper Cover L&R/Handle
Flap Packing		Rectifier	Bar cover/Handle Comp.
Ridge For Engine Bonnet	Rear Sprocket	Horn	Head Lamp Housing/
Front & Rear Wheel	Front & Rear Wheel	Regulator	Steering Handle Comp.
Flange	Panel	Speedometer Assy	Frontcenter Cover/
Bleading For Engine	Handle Under Cover/	Tachometer Assy	Front Panel
Bonnet	Handle Bar Housing,	Lock Assy	Steering Cap/Steering
Spark Plug	Lower Part/Handle	Fuel Tank Cap With Lock	Dust Seal/Steering Head
	Lower Cover	Non Critical Rubber Parts	Dust Seal/Ball Race Cover
(14 Items)	Under Bracket/	Stickers	Simple Plastic Parts
	Steering Stem	Signal Bulb	Disc Caliper
	(35 Items)		

(35 Items)

Source: No. 651/M/SK/11/1981 No. 127/DJAI/SK/VIII/1982

Table ANX V-15 DELETION PROGRAM FOR MOTOR CYCLE AND SCOOTER ENGINE (IN-HOUSE)

Components	1984	1985	1986	1987
Crank Case Cover	A	М	M+DC	M+DC
Crank Case	A	М	M+DC	M+DC
Cylinder Head	A	М	M+DC	M+DC
Cylinder Block	A	M	M+DC	M+DC
Piston	A	М	M+DC	M+DC
Piston Pin	A	A	M	M+F
Crank Shaft	A	A	М	M+F
Connecting Rod	A	Α	М	M+F
Main Gears	A	Α	M	M+F
Gear Shaft	A	A	M	M+F
Main Shaft	A	A	M	M+F
Counter Shaft	A	A	M	M+F
Sprocket	A	A	M	M+F
Kick Starter Complete	A	A	М	M+F
Crank Pin	A	A	M	M+F
Covers	A	M	M+DC	M+DC
Counter gears	A	A	M	M+F
Cylinder Sleeve	A	A	M	M+FC
Cam Shaft	A	A	М	M+F
Valves Assy	A	A	M	M+F
Fly Wheel	A	М	M+DC	M+DC

Note: A: Assembling
M: Machining
DC: Die Casting
FC: Ferro Casting

F : Forging

Source: No. 505/M/SK/12/1983

Table ANX V-16

DELETION PROGRAM FOR MOTOR CYCLE AND SCOOTER ENGINE
(OUT-HOUSE)

Components	1984	1985	1986	1987
Spark Plug	x	X	x	X
Drive Chain			X	X
Rubber Parts		X	X	X
Plastic Parts		Х	X	Х
Clutch				X
Piston Ring		X	X	X
Fuel Cock		X	X	X
Bolt & Nut (Standard)			X	X
Bolt & Nut (Hi-Tension)			X	X
Gasket			Х	X
Generator Assy				x
Magneto coil				X
Lever and Switch			X	X
Cam Chain			X	X
Oil Filter		X	X	Χ
Cam Chain Tension			X	X
Screw, Pin, Washer		X	X	X
Contact Breaker			, X	X
Spark Advancer			X	X
Oil Pump				Х
Electric Starter				X

Note: X: Phase of use of components.

Source: No. 505/M/SK/12/1983

#### Table ANX V-17

# THE NEW INVESTMENT FOR SECONDARY DELETION PROGRAM MOTOR CYCLE AND SCOOTER

Item	
Engine (Gasoline)	P.T. Suzuki Engine Industry (Suzuki) P.T. Honda Astra Engine Mfg (Honda) P.T. Yamaha Harapan Motor Sakti (Yamaha) P.T. Dan Motors Vespa Indonesia (Vespa)

### DELETION PROGRAM FOR ELECTRICAL EQUIPMENT (1) (DIESEL MOTOR, 26KW TO 375KW)

```
(Since Oct. 1, 1983)
Filter group: Oil filter (O), Fuel filter (O), Air filter (O), Bracket (O)
Engine mounting: Engine mounting assy (0)
Piping group: Cooling water pipe (0), Fuel pressure pipe (I),
               Lubrication pipe (1), Exhaust Pipe connection (0),
               Protective pipe (I)
Components standard: Clamp (0), V-belt (0)
Miscellaneous: Accu (O), Muffler (O), Handling slug ( )
(Since Oct. 1, 1984)
Crank case: Oil fan (O), Dip Rod (O), Oil filter plug (O)
Crank shaft: Fly wheel (I)
Piston assy: Piston ring (0), Piston (0), Piston pin (I)
Connecting rod: Connecting rod (I)
Cylinder head: Support of rocker arm (I), Rocker arm (),
                Push rod (I)
Intake & exhaust pipe: Intake & exhaust pipe (I)
Electric equipment/panel engine: Electric equipment/engine panel assy (0)
Pully group: Crank shaft pully (I), Centrifugal pump pully (I),
              Tension pully (I), Fan drive pully (I), Alternator pully (I)
Components standard: Gasket (0)
Miscellaneous: Tools (O), Turning device (O), Plastic parts (O)
(Since Oct. 1, 1985)
Crank case: Cylinder liner (I), Counter balance (I),
             Front cover (I), Fly wheel housing (I)
Crank shaft: Counter weight (I), Cam shaft assy (I)
Cover group: Cover (I)
Cylinder head: Cylinder head (I), Cylinder head cover (I)
Indirect cooling: Indirect cooling assy (0)
Cooling system: Circulation cooling assy (0), Airduction assy (0)
Dynamo/alternator: Dynamo/alternator assy (0), Support assy (I)
Starter: Electric starter (0)
(Since Oct. 1, 1986)
Crank case: Crank case assy (1)
Crank shaft: Crank shaft (I)
Gear group: Crank shaft gear (I), Cam shaft gear (I), ring gear (I)
Centrifugal: Centrifugal pump assy (O)
Fan drive: Fan drive assy(0)
Blower: Blower assy (0)
(Since Oct. 1, 1987)
Oil gear pump: Oil gear pump complete (O)
Oil cooler: Oil cooler complete (O)
```

- Notes: 1. In house work (I) is only machining, whereas Blanks is from outside.
  - Blanks from foundry/forging for the forging components can still be imported as long as said blanks have not been able domestically manufactured.
  - 3. The exchanged components which can still be imported are : Special Screw & Nut; Stud; Valve; Roller/Ball Bearing; Bushing/Bearing Bush; Speed Adjusting Control Device; Injection Pump Assy and Turbo Charger; etc.
  - By not closing the possibility for the manufacturing companies to manufacture said components earliner than the stipulated schedule.
  - 5. (I) = In-House work,
     (0) = Out-House work.

Source: Decree of the minister of industry No. 202/M/SK/6/1983 dated June 9, 1983

### DELETION PROGRAM FOR INDUSTRIAL BOILER (MORE THAN 5 TON/H)

(Since July 1, 1985)

Import: Valves, Pipe fitting, Pump (Fuel, Feed water), Burner assy, End
 plate, Soot remover, Gage and control device, Not yet manufactured
 Raw materials (Steel plate, Pipe)

Local: Frame and support, Boiler drum, Tube shell/ Tube bundle,
Fireproofing material, Control panel, Common component (bolt, nut,
rebet, others), Fan/Blower, Electric boiler, Insulation work,
Construction work/welding, Assembling, Installation)

(Since July 1, 1986)

Valves, Pipe fitting and pumps (Full & feed water) shall be transferred to local manufacturing.

(Since July 1, 1987)
End plate and Burner assy shall be transferred to local manufacturing.

Source: Decree of the minister of industry No. 73/M/SK/2/1985 dated February 23, 1985

