

SPECIFICATIONS AND DRAWINGS

DESCRIPTION: KZN/RAIL/2023/08/04/Q - PURCHASING AGREEMENT FOR SUPPLY OF LOCKS, KEYS AND HINGES FOR KZN METRORAIL OVER A PERIOD OF TWENTY-FOUR (24) MONTHS (AS AND WHEN REQUIRED)

1. SCOPE OF WORK:

This agreement covers the procurement of locks, keys and hinges for KZN Metrorail over a period of twenty-four months.

2. TRANSPORT:

Delivery to the KZN Main Warehouse in Springfield will be at the cost of the Supplier. This cost must be factored into the final price of the component.

3. DELIVERY:

- Thirty working days from date of official Purchase Order.
- Purchase orders will be issued on an as and when basis throughout the duration of the contract.

4. PENALTIES:

- Should the Contractor fail to deliver on or before the agreed date, a penalty of 1% per day will be charged on the total value of the Purchase order (PO) but shall not exceed 10 percent of the total value of the PO.
- Metrorail KZN reserves the right to test the product at any given time during the contract period for compliance. The Supplier will be held liable with costs for any deviations in the specifications which may have resulted in damages and downtime to Rolling Stock equipment. A meeting will be convened by both parties (Metrorail KZN and the Contractor) to discuss the outcome of the investigation and costs incurred.

5. COMPLIANCE:

- The supplier must submit in writing on a signed company letterhead that all technical specifications listed in the tender document will be met.
- The supplier must submit in writing on a signed company letterhead that all non-conformances will be closed within 10 days.

6. TERMINATION OF CONTRACT:

PRASA KZN reserves the right to cancel the agreement at any time during the stipulated period due to the contractor not performing according to the requirements of the agreement.

7. PRICE ADJUSTMENTS:

- Items will be quoted on as per bill of quantity (BOQ) over a two-year period.
- All lines on the BOQ must be populated for both years. Partial completion will lead to a disqualification.

8. CONTRACT PERIOD AND VALUE:

This contract shall commence within one week of its award and will be over a period of twenty-four months or attaining a value of R750,000.00 (seven hundred and fifty thousand rands) VAT inclusive. The contract will terminate, either when the twenty-four months or the contract value is reached, whichever comes first.

9. SAMPLES:

- The winning bidder may be requested to provide a sample of selected items within five days at his/her own cost
- The sample will be inspected by the end user to ensure that it meets with the specifications
- If approved, the winning bidder will be awarded the Contract
- If the sample does not meet with specifications, an opportunity will be given to provide the correct sample within two days, at the price originally quoted for. Any increase in price will lead to disqualification
- If the winning bidder cannot provide the correct sample. The second bidder will be called upon to provide a sample

10. GENERAL:

- Where brand names are mentioned in the specifications, you may quote on an equivalent/similar product. Alternative products must function as a plug and play unit. Alternate products must not constitute to modification/replacement for functionality.
- Alternate products must meet the minimum requirements mentioned in the Specifications

11. DOCUMENTS TO BE SUBMITTED WITH THIS TENDER

- **The supplier must submit in writing (on a signed company letterhead) with this tender, acknowledging that:**
 - The technical specifications of the products listed in the tender document will be met.
 - Non-conformances will be closed within 10 days
 - Alternate products will not constitute to modification of present working systems

12. PRICING AND SPECIFIC GOALS

The following formula, shall be used by the Bid Evaluation Committee to allocate scores to the interested bidders:

The maximum points for this tender are allocated as follows:

	POINTS
PRICE	80
SPECIFIC GOALS	20

TOTAL POINTS FOR PRICE AND SPECIFIC GOALS	100
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FORMULAE FOR PROCUREMENT OF GOODS AND SERVICES

POINTS AWARDED FOR PRICE

THE 80/20 PREFERENCE POINT SYSTEMS

A maximum of **80** points is allocated for price on the following basis:

$$PS = 80 \left(1 - \frac{Pt - P_{min}}{P_{min}} \right)$$

Where

Ps = Points scored for price of tender under consideration

Pt = Price of tender under consideration

Pmin = Price of lowest acceptable tender

POINTS AWARDED FOR SPECIFIC GOALS

In terms of Regulation 4(2); 5(2); 6(2) and 7(2) of the Preferential Procurement Regulations, preference points must be awarded for specific goals stated in the tender. For the purposes of this tender the tenderer will be allocated points based on the goals stated in table 1 below as may be supported by proof/ documentation stated in the conditions of this tender:

Table 1: Specific goals for the tender and points claimed are indicated per the table below. (Note to organs of state: Where either the 80/20 preference point system is applicable, corresponding points must also be indicated as such.

Note to tenderers: The tenderer must indicate how they claim points for each preference point system.)

The specific goals allocated points in terms of this tender	Number of points allocated (80/20 system) (To be completed by the organ of state)	Number of points claimed (80/20 system) (To be completed by the tenderer)
Entities with a B-BBEE contributor status of at least level 2 - B-BBEE Certificate/Affidavit	10	
Black Youth Owned-Certified Copy of ID documents of owners	10	
Total	20	

13. SPECIFICATIONS:

- 13.1 M00010068 - handle, door, vehicular; type drivers; p/n: NS05601-10-000 siya; assembly, complete, used on 10M5



- 13.2 M00020550 - linkage; type driver's door lock; p/n: ns00001-04-005 used on: Siyahamba doors 10m5



- 13.3 M00024034 - padlock; type 3/4, dimensions conforms to drawing : A3 54-47254/latest in, shackle material steel; private lock



CME

FOR LIMITS ON UNTOLERANCED DIMENSIONS
 SEE DRG. No. CME 4092/0-000 (LATEST)
 VIR LIMITE OP AFMETINGS WAT NIE 'N TOLERANSIE
 BEVAT NIE, KYK TEK. No. CME 4092/0-000 (JONGSTE)

PROJECTION
 PROJEKSIIE

CONTRACTORS DRG.
 KONTRAKTEUR SE TEK. No. **A4 37-47546**

LOCK CATCH

NIGEL

ASSEMBLY DRG. No. A237-47358 IT.4 SAMESTELTEK.		DRN - GET.	TCD - NGT. G. B.		CKD - NGT. B. A.	MATERIAL - MATERIAAL GUN METAL BS 1400 LG 2
SUPERSEDES/REPLACES DRG. No. P37-17031 VERVANG TEK.		APPROVED GOEDGEK.			STORES IT. No.	
CLASS OR TYPE ALL SUBURBAN MOTORS KLAS OF TIPE		REF. VERW.			No. CME	
DATE DATUM 81-06-30		SCALE SKAAL 1:1			AMENDMENT WYSIGING	

SEPIA TO M.E.
 SEPIA AAN M.I.

DIMENSIONS IN mm EXCEPT WHERE OTHERWISE INDICATED
 AFMETINGS IN mm BEHALWE WAAR ANDERS AANGEDUI

UNION CARRIAGE & WAGON CO. (PTY) LTD.

CME	FOR LIMITS ON UNTOLERANCED DIMENSIONS SEE DRG. No. CME 4092/0-000 (LATEST) VIR LIMITE OP AFMETINGS WAT NIE 'N TOLERANSIE BEVAT NIE. KYK TEK. No. CME 4092/0-000 (JONGSTE)	PROJECTION PROJEKSIE		CONTRACTORS DRG. No. A4 37-47545 KONTRAKTEUR SE TEK.
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(A4)

ASSEMBLY DRG. SAMESTELTEK. No.	A 37-47358 IT. 3	DRN. - GET.	
	A 54-47216 IT. 5	TCD. - NGT.	G. B.
SUPERSEDES/REPLACES DRG. VERVANG TEK. No.	P 37-17030	CKD. - NGS.	BA
		APPROVED GOEDGEK.	
CLASS OR TYPE KLAS OF TIPE	ALL SUBURBAN MOTORS		
		REF. VERW.	
		DATE DATUM	30-06-81
SEPIA TO M.E. SEPIA AAN M.I.		SCALE SKAAL	2:1

SPRING

UNION CARRIAGE & WAGON CO. (PTY) LTD.	NIGEL	MATERIAL - MATERIAAL
		SPRING STEEL
		Ø 1,6 x 103
		SPEC. CME 140
		STORES MAG. IT. No.
		No. CME
		AMENDMENT WYSIGING

CME	FOR LIMITS ON UNTOLERANCED DIMENSIONS SEE DRG. No. CME 4092/0-000 (LATEST) VIR LIMITE OP AFMETINGS WAT NIE 'N TOLERANSIE BEVAT NIE. KYK TEK. No. CME 4092/0-000 (JONGSTE)	PROJECTION PROJEKSIE		CONTRACTORS DRG. No. A4 37-47547 KONTRAKTEUR SE TEK.
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(A4)

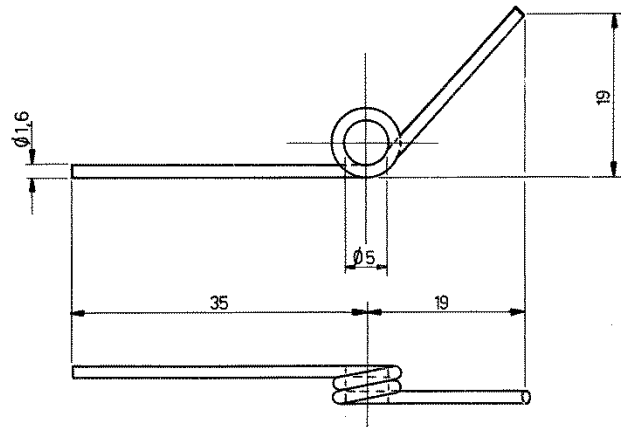
ASSEMBLY DRG. SAMESTELTEK. No.	A 37-47358 IT. 5	DRN. - GET.	
		TCD. - NGT.	M.R.
SUPERSEDES/REPLACES DRG. VERVANG TEK. No.	P 37 - 17091	CKD. - NGS.	
		APPROVED GOEDGEK.	
CLASS OR TYPE KLAS OF TIPE	ALL SUBURBAN MOTORS		
		REF. VERW.	
		DATE DATUM	MARCH '79
SEPIA TO M.E. SEPIA AAN M.I.		SCALE SKAAL	1:1

LT. DOOR LOCK TUMBLER

UNION CARRIAGE & WAGON CO. (PTY) LTD.	NIGEL	MATERIAL - MATERIAAL
		GUNMETAL
		STORES MAG. IT. No.
		No. CME
		AMENDMENT WYSIGING

TRACED BY AS-MADE

CME	FOR LIMITS ON UNTOLERANCED DIMENSIONS SEE DRG. No. CME 4092/0-000 (LATEST) VIR LIMITE OP AFMETINGS WAT NIE 'N TOLERANSIE BEVAT NIE, KYK TEK. No. CME 4092/0-000 (JONGSTE)	PROJECTION PROJEKSIE	CONTRACTORS DRG. No. A4 37-47544 KONTRAKTEUR SE TEK.
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ASSEMBLY DRG. No. **A27-47358 IT. 2**

SUPERSEDES/REPLACES DRG. No. **A254-47216 IT. 4**

CLASS OR TYPE ALL SUBURBAN MOTORS

SEPIA TO M.E.

DRN - GET

TCD - NGT G.B.

CKD - NGS BA

APPROVED

DATE 81-06-29

SCALE 2:1

UNION CARRIAGE & WAGON CO. (PTY) LTD.

SPRING

DIMENSIONS IN mm EXCEPT WHERE OTHERWISE INDICATED

NIGEL

SPRING STEEL

Ø 1.6 x 98

SPEC. CME 140

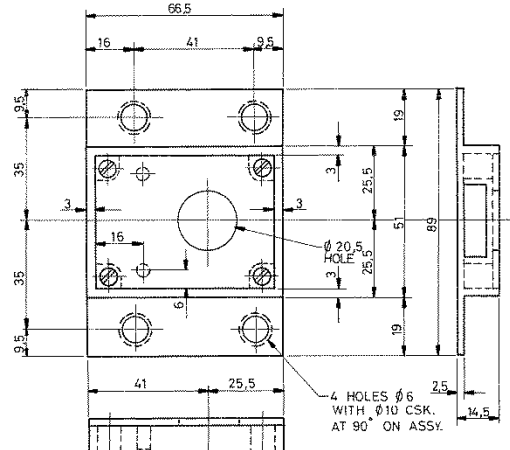
STORES

IT. No.

No. CME

AMENDMENT

CME	FOR LIMITS ON UNTOLERANCED DIMENSIONS SEE DRG. No. CME 4092/0-000 (LATEST) VIR LIMITE OP AFMETINGS WAT NIE 'N TOLERANSIE BEVAT NIE, KYK TEK. No. CME 4092/0-000 (JONGSTE)	PROJECTION PROJEKSIE	CONTRACTORS DRG. No. A3 37-47543 KONTRAKTEUR SE TEK.
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ASSEMBLY DRG. No. **A254-47216 IT. 1**

SUPERSEDES/REPLACES DRG. No. **P37-17028**

CLASS OR TYPE ALL SUBURBAN MOTORS

SEPIA TO M.E.

DRN - GET

TCD - NGT GB

CKD - NGS BA

APPROVED

DATE 81-06-30

SCALE 1:1

UNION CARRIAGE & WAGON CO. (PTY) LTD.

LOCK CASE

DIMENSIONS IN mm EXCEPT WHERE OTHERWISE INDICATED

NIGEL

GUN METAL

BS 1400 LG 2

STORES

IT. No.

No. CME

AMENDMENT

- 13.5 M00022268 - handle, door; type end door assembly, furnished items bush/lock/washer; allied item 67/022561 (bush) 67/025286 (handle) 67/026801 (lock) 67/031552 (washer) 67/031564 (washer), equipment used on mainline coach suburban coach, material plastic

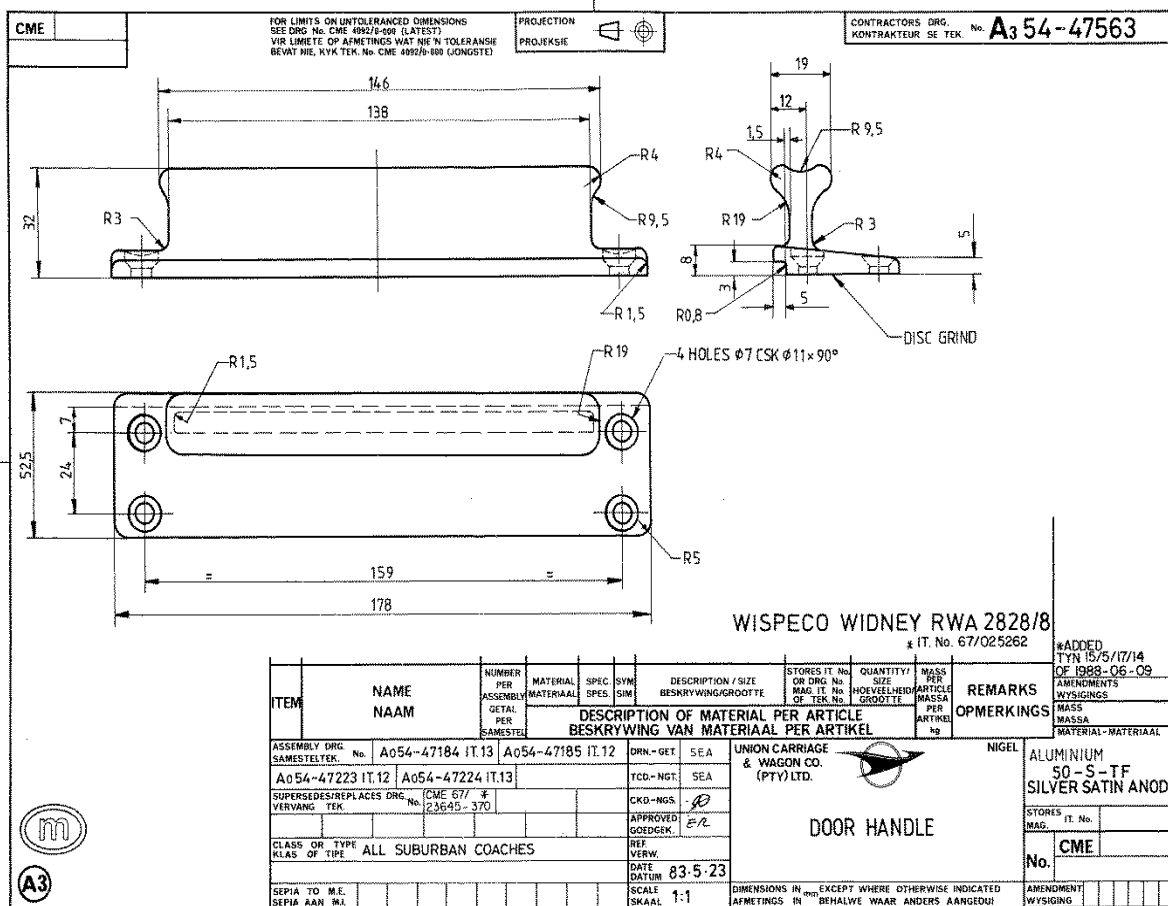


CME		FOR LIMITS ON UNTOLERANCED DIMENSIONS SEE DRG. No. CME 4012/0 (LATEST) VIR LIMITE OP AFMETINGS WAT NIE TOEGELASSE BEVAT NIE. KYK TEK. No. CME 4082/0-099 (LATEST)				PROJECTION PROJEKSIJE		CONTRACTORS DRG. No. A3 54-47228 KONTRAKTEUR SE TEK.			
				FINISH: SATIN CHROMED MATT FINISH		1/03917 CME 67-29775-430 CME 67-29774-430 CME 67-21187-433					
6	CIRCLIP	1	SPRSTL		17 x 1,00 DIN. 471						
5	WASHER	1				A54-47366					
4	WASHER	1				A54-47365					
3	BUSH	1				A54-47364					
2	HANDLE	1				A54-47368					
1	ESCUTCHEON	1				A54-47367					
ITEM	NAME NAAM	NUMBER PER ASSEMBLY GETAL PER SAMESTEL	MATERIAL	SPEC.	SYM.	DESCRIPTION / SIZE BESKRYWING/GROOTTE	STORES, IT No. OR DRG. No. MAG. IT No. OF TEK. No.	QUANTITY / SIZE HOEVEELHEID GROOTTE	MASS PER ARTIKEL kg	REMARKS OPMERKINGS	AMENDMENTS WYSIGINGS
DESCRIPTION OF MATERIAL PER ARTICLE BESKRYWING VAN MATERIAAL PER ARTIKEL											
ASSEMBLY DRG. SAMESTELTEK. No. A2 54-47226 IT. 2				DRN - GET.		UNION		NIGEL		SEE TABLE	
SUPERSEDES/REPLACES DRG. No. D 54-23017		CME 67/23619-37C		C 15567/20030		CKD-HGS		R.R.			
A3 - 54/47227				APPROVED							
CLASS OR TYPE KLAS OF TYP		ALL SUBURBAN COACHES AND		REF. VERW.							
MAINLINE COACHES				DATE DATUM		MARCH '79					
SEPIA TO. N.E. SEPIA AAN ME				SCALE SKAAL		1 : 1		DIMENSIONS IN mm EXCEPT WHERE OTHERWISE INDICATED AFMETINGS IN mm BEHALWE WAAR ANDERS AANGEDE		AMENDMENT WYSIGING	

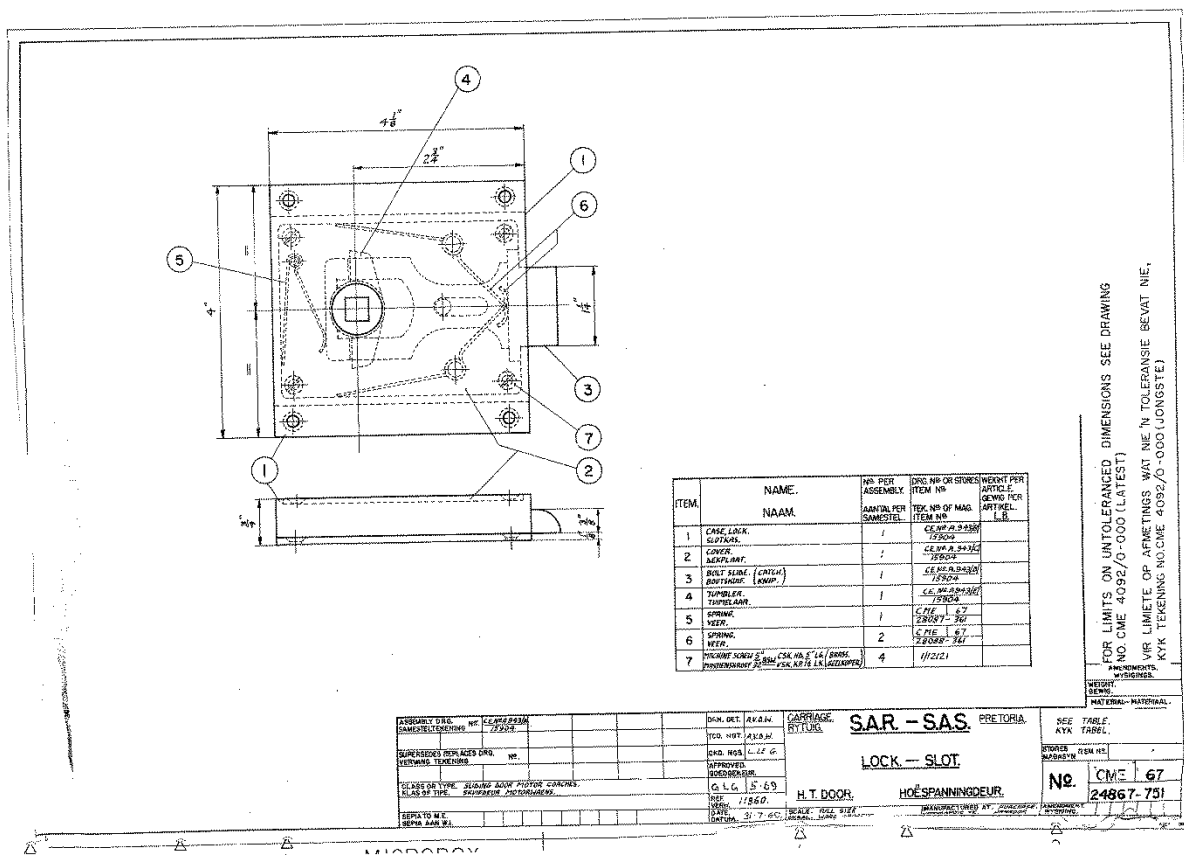


A4

- 13.6 M00024019 - handle, door; type sliding grip, dimensions 52.5 x 32 x 178 long, drawing : A3 54-47563/latest mm, material plastic



M00031520 - lock; type HT compartment, application electrical locomotive



- 13.8 M00033288 - lock, mortise; dimensions wide 50 x length 90 mm, lock material steel; end door users description allied item 67/025197 (handle) 67/030089 (spindle), A2 54-47235, and component equipment used on mainline coach suburban coach



DIMENSIONS IN IN. (EXCEPT WHERE OTHERWISE INDICATED)
AFMETINGEN IN MM (BEHALVEN WAAR ANDERS AANGEGEVEN)

PRODUCTION
FABRICATIE

FOR LIMITS ON DIMENSIONS (DIMENSIONS SEE ENG. DR. 4002/0-000-)
VIA LIMieten OP AFMETINGEN ZIELEN IN TOEGANG. STE. 10. 40. 000/0-000-

8 1 CUT SCREWS 4 mm DIAETER
8 1 GAT SCROEWS 4 mm DIAETER

ITEM	NAME	QTY	MATERIAL	SPEC	QTY	DESCRIPTION	QTY	DESCRIPTION	QTY	DESCRIPTION	REMARKS
ITEM	NAAM	QTY	MATERIAAL	SPEC	QTY	BESCHRIJVING	QTY	BESCHRIJVING	QTY	BESCHRIJVING	OPMERKINGEN
8	SCREW SCHROEF	12	STEEL	4183	MS 1 8	61/954203					
7	SPRING VEER	2				RS 4001_003_361					
6	LEVER HEFBOOM	1				RS 4002_001_302					
5	CLIM SLOT	1				RS 4001_001_375					
4	PLATE PLAAT	2				RS 4002_001_220					
3	PLATE PLAAT	1				RS 4002_001_220					
2	CASE LOCK SLOTKAS	1				RS 4002_001_335					
1	CASE LOCK SLOTKAS	2				RS 4001_001_335					

ITEM NAME QTY MATERIAL SPEC QTY DESCRIPTION QTY DESCRIPTION QTY DESCRIPTION REMARKS

ITEM NAAM QTY MATERIAAL SPEC QTY BESCHRIJVING QTY BESCHRIJVING QTY BESCHRIJVING OPMERKINGEN

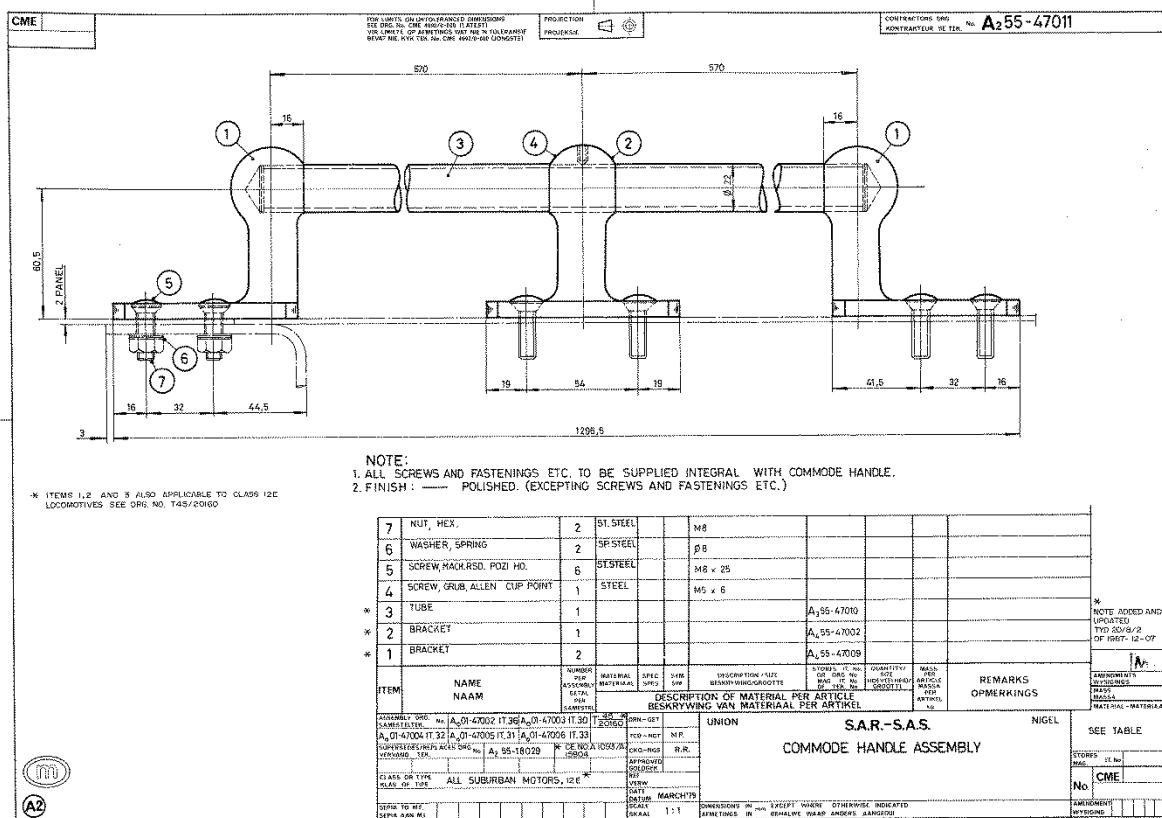
ROLLSTOCK SPOORNET ROLNAT

LOCK ASSEMBLY
SLOTSAMESTEL

SEE TABLE
ZIEH TABEL

STOCK NO. RS 4001_001_021

M00074587 - handle; assembly, commode guards door handrail, equipment used on suburban coach



CME	FOR LIMITS ON UNTOLERANCED DIMENSIONS SEE DRG. No. CME 4092/0-000 (LATEST) VIR LIMITE OP AFMETINGS WAT NIE 'N TOLERANSIE BEVAT NIE, KYK TEK. No. CME 4092/0-000 (JONGSTE)	PROJECTION PROEKSIE	CONTRACTORS DRG. No. A3 55-47010 KONTRAKTEUR SE TEK.
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SOLID DRAWN SEAMLESS STAINLESS
STEEL TUBE (POLISHED)

ITEM	NAME NAAM	NUMBER PER ASSEMBLY GETAL PER SAMESTEL	MATERIAL	SPCS SHS SIN	SYMP	DESCRIPTION / SIZE BESKRYWING / GROOTTE	STORES IT No. OM DRG No. MOV. IT. No.	QUANTITY Hoeveelheid GROOTTE	MASS PER ARTIKEL kg	REMARKS OPMERKINGS	AMENDMENTS WYSIGINGS
ASSEMBLY DRG. SAMESTELTEK. No.	A2 55-47011 IT. 3					DRN - GET.	UNION			S.A.R.-S.A.S. TUBE	
SUPERSEDES/REPLACES DRG. VERVANG TEK. No.	D55-17031		* CME 382 12 - 419			TCD - NGT. MB.				STAINLESS STEEL TUBE 22 O/D x 1,6 x 1148 AISI 301	
CLASS OR TYPE KLAS OF TIPE	ALL SUBURBAN MOTORS		* I2E			APPROVED GOEDGEK.				STAINLESS STEEL TUBE 22 O/D x 1,6 x 1148 AISI 301	
SEPIA TO M.E. SEPIA AAN M.I.						REF. VERW. DATE DATUM MARCH '79				STAINLESS STEEL TUBE 22 O/D x 1,6 x 1148 AISI 301	
						SCALE SKAAL 1:1				STAINLESS STEEL TUBE 22 O/D x 1,6 x 1148 AISI 301	

* UPDATED
TYD 20/8/2
OF 1987-12-07

AMENDMENTS
WYSIGINGS

MASS
MASSA

MATERIAL-MATERIAAL

STAINLESS STEEL
TUBE 22 O/D x 1,6 x 1148
AISI 301

STORES IT No. *14/004000

MAG. CME

No.

AMENDMENT
WYSIGING

CME	FOR LIMITS ON UNTOLERANCED DIMENSIONS SEE DRG. No. CME 4092/0-000 (LATEST) VIR LIMITE OP AFMETINGS WAT NIE 'N TOLERANSIE BEVAT NIE, KYK TEK. No. CME 4092/0-000 (JONGSTE)	PROJECTION PROEKSIE	CONTRACTORS DRG. No. A4 55-47002 KONTRAKTEUR SE TEK.
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2 HOLES - Ø 9
DRILLED & CSK.
Ø 15,5 x 45°

ITEM	NAME NAAM	NUMBER PER ASSEMBLY GETAL PER SAMESTEL	MATERIAL	SPCS SHS SIN	SYMP	DESCRIPTION / SIZE BESKRYWING / GROOTTE	STORES IT No. OM DRG No. MOV. IT. No.	QUANTITY Hoeveelheid GROOTTE	MASS PER ARTIKEL kg	REMARKS OPMERKINGS	AMENDMENTS WYSIGINGS
ASSEMBLY DRG. SAMESTELTEK. No.	A2 55-47011 IT. 2					DRN - GET.	UNION			S.A.R.-S.A.S. BRACKET	
SUPERSEDES/REPLACES DRG. VERVANG TEK. No.	P55-16014					TCD - NGT. J.D.F.				CAST STAINLESS STEEL 18/8 QUALITY. POLISHED TO N° 4 AISI.	
CLASS OR TYPE KLAS OF TIPE	ALL MOTORS		* I2E			APPROVED GOEDGEK.				CAST STAINLESS STEEL 18/8 QUALITY. POLISHED TO N° 4 AISI.	
SEPIA TO M.E. SEPIA AAN M.I.						REF. VERW. DATE DATUM MARCH '79				CAST STAINLESS STEEL 18/8 QUALITY. POLISHED TO N° 4 AISI.	
						SCALE SKAAL 1:1				CAST STAINLESS STEEL 18/8 QUALITY. POLISHED TO N° 4 AISI.	

* UPDATED
TYD 20/8/2
OF 1987-12-07

AMENDMENTS
WYSIGINGS

MASS
MASSA

MATERIAL-MATERIAAL


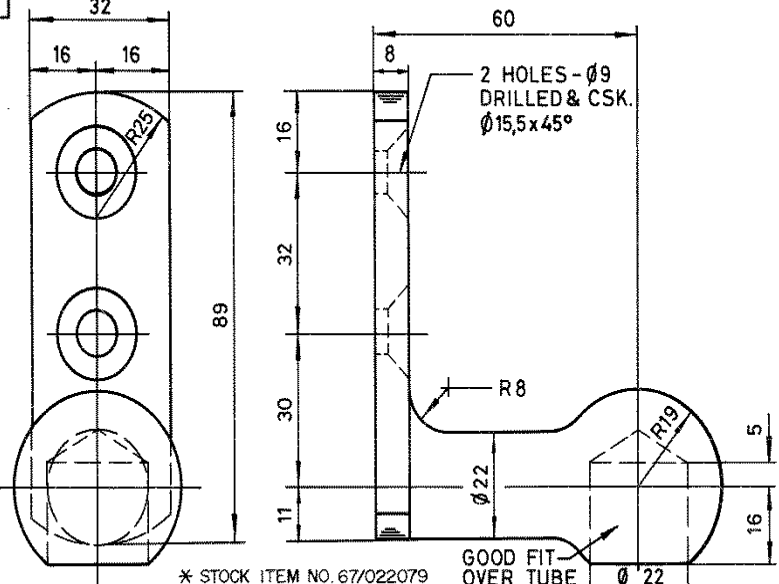
CAST STAINLESS STEEL
18/8 QUALITY.
POLISHED TO N° 4
AISI.

STORES IT No.

MAG. CME

No.

AMENDMENT
WYSIGING

CME		FOR LIMITS ON UNTOLERANCED DIMENSIONS SEE DRG. No. CME 4092/0-000 (LATEST) VIR LIMITE OP AFMETINGS WAT NIE 'N TOLERANSIE BEVAT NIE. KYK TEK. No. CME 4092/0-000 (JONGSTE)		PROJECTION PROJEKSIE		CONTRACTORS DRG. No. A4 55-47009 KONTRAKTEUR SE TEK.	
 (A4)				* UPDATED TYD 20/8/2 OF 1987-12-07 M v t			
		* STOCK ITEM NO. 67/022079		AMENDMENTS WYSIGINGS MASS MASSA MATERIAL - MATERIAAL			
ASSEMBLY DRG. No. A2 55-47011 IT.1 SAMESTELTEK.		DRN - GET. TCD - NGT J.D.F.		UNION S.A.R. - S.A.S.		NIGEL CAST STAINLESS STEEL	
SUPERSEDES/REPLACES DRG. No. A355-17030 VERVANG TEK.		CKD - NGS. R.R.		BRACKET		18/8 QUALITY. POLISHED TO N° 4 AISI	
* CME 67 20728-352		APPROVED GOEDGEK.		REF. VERW.		STORES MAG. IT. No.	
CLASS OR TYPE KLAS OF TIPE ALL MOTORS * I2E		DATE DATUM MARCH '79		DIMENSIONS IN mm EXCEPT WHERE OTHERWISE INDICATED AFMETINGS IN mm BEHALWE WAAR ANDERS AANGEDUI		No. CME	
SEPIA TO M.E. SEPIA AAN M.I.		SCALE SKAAL 1 : 1		AMENDMENT WYSIGING		No.	

13.10 M00076425 - handle, door; material plastic; for toilet (exterior) to be manufactured, 12 mm hole, diameter 106mm

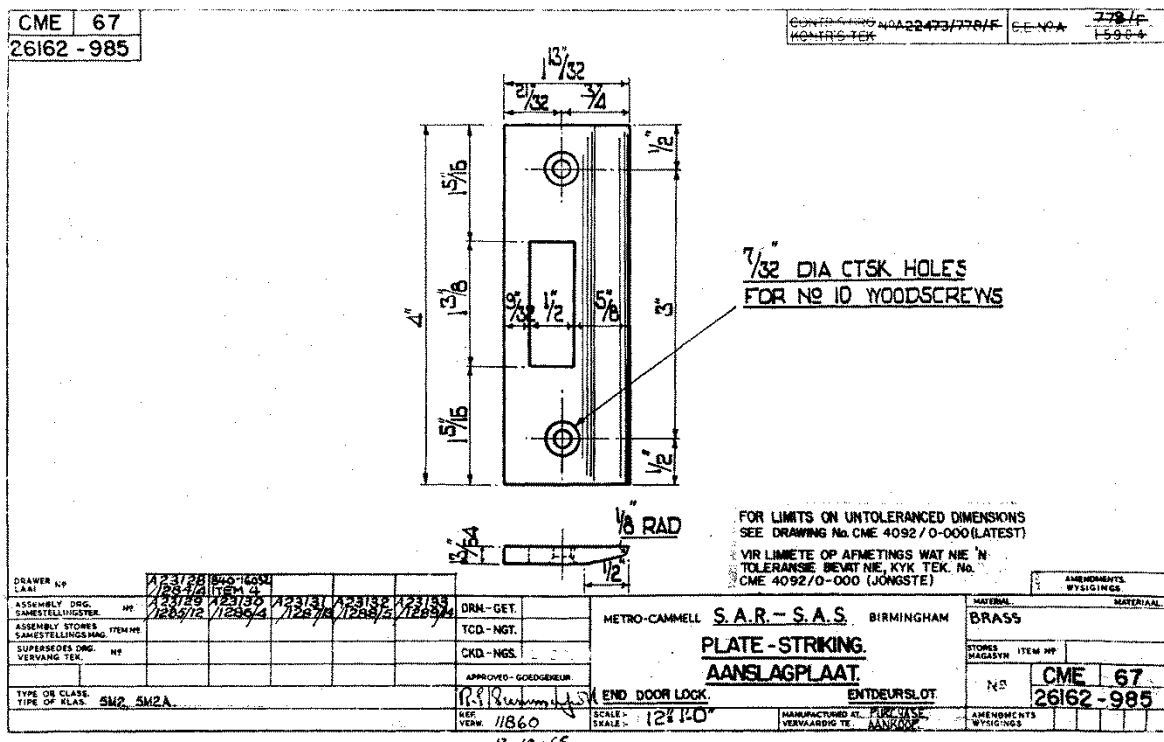


- 13.11 M00104728 - lever, switch; type HT isolating/earthing switch, used on 10ms motor coaches, features level manual control, material stainless steel



- 13.12 M00104815 - strike, catch; type end door, striker plate, 10m5, dimensions 3mm thick, material stainless steel, 100mm x 50mm, slot dimension 40mm x 10mm, with 2 x 5mm holes





- 13.13 M00000197 - padlock; body material brass cast, dimensions wide 60 mm, features 5 pin tumbler, furnished items shackle, cylinder lock with 2 brass keys, shackle material nickel plated; p/n: 22010-60 cisa, p/n: 3102 union; to quoted part number or equal, equipment used on securing explosives or highly.



- 13.14 M00042371 - padlock; type case, body material brass, dimensions wide 40 mm, furnished items shackle (6 mm) with two keys, shackle material steel nickel plated; p/n: 302 viro; to quoted part number or equal approved list no 63 group 1, equipment used on outside use general el&p, equal



- 13.15 M00043665 - bolt, barrel; type pad, dimensions length 4 in; for door, equipment used on baggage van official coach



- 13.16 M00000226 - bolt, barrel; finish polished, dimensions wide 25 x length 75 mm, material, brass, special features brass shoot diameter 8 mm; p/n: b517 boustreds art 205, solid/esco; used on cabinet door, etc, part number or equal, solid, drawn, heavy pattern to quoted



- 13.17 M00031934 - lock set, rim; type cylinder night latch, dimensions 92 x 67 mm, material zinc alloy; with furniture and 2 keys, case and striker box



- 13.18 M00042094 - lock, mortise; type rebated, dimensions wide 76 x length 100 mm, features two lever complete with two keys; p/n: cz 682-24-93 ch union; with furniture, reversible to quoted part number or equal, equipment used on interior double door



- 13.19 M00003039 - hinge, butt; length 3 in, features 3 screw holes per leaf, material brass, nickel plated, type butt, width 2 in



- 13.20 M00010918 - hinge, butt; length 2-1/2 inch, finish satin chrome, features steel pin, 3 screw holes per leaf, open, material brass, type butt, width 2-1/4 in;



- 13.21 M00033287 - hinge, butt; length 3 inch, finish satin chrome, features brass pin, 3 screw holes per leaf, material brass, butt width 2 inch; users description end door; used on suburban coach 5m2a mainline coach gd-1 main



- 13.22 M00044413 - hinge, butt; length 64 mm, features brass pin, 3 screw holes per leaf, light, open, material solid brass, type butt, width 42 mm;



- 13.23 M00023184 - catch, elbow; features with screws unbalanced windows; stocked, users description unbalanced drop window passenger compartment, toilet sliding window and van allied item 67/011053 (toilet window) 67/031604 (drop window) 67/033223 (toilet window)', base dimensions 110mm x 28mm,



- 13.24 M00001490 - handle; commutator cover users description traction motors, access cover, equipment used on motor coach 5m2a, material mild steel, galvanized, steel dimensions 100mm x 25mm x 6mm thick, bolt size m10 x 90mm



RS	BCA	PROJECTION PROEKSIE		FOR LIMITS ON UNTOLERANCED DIMENSIONS SEE DRG. NO. CME 4092/0-000 (LATEST) VIR LIMITE OP AFMETINGS WAT NIE 'N TOLERANSIE BEVAT NIE KYK TEK. NO. CME 4092/0-000 (JONGSTEF)
12				

NOTE/OPMERKING
THIS LINKAGE ARM IS USED WITH THE MODIFIED COMMUTATOR COVER IN PLACE OF THE HANDLE ASSEMBLY.
HIERDIE KOPPELARM WORD IN DIE PLEK VAN DIE HANDVATSELSAMESTEL MET DIE VERANDERDE KOMMUTATORDEKSTUK GEBRUIK.

* ELECTROPLATE TO VOLG. B.S. 3382 PART 1 OR 2
ELEKTROPLATEER VOLG. B.S. 3382 DEEL 1 OF 2

ITEM	NAME NAAM	QUANTITY	THCB-76	THCB-78	THCB-77
*	5 SPLITPIN, STEEL SPLITPEN, STAAL	1			
*	4 BOLT AND NUT, STEEL, HEX. HEAD M10 x 90L BOUT EN MOER, STAAL, SESKANTKOP M10 x 90L	1			
3	PIN PEN	1	THCB-76		
2	PLATE, SIDE, RIGHAND PLAAT, SY., REGTER	1	THCB-78		
1	PLATE, SIDE, LEFTHAND PLAAT, SY., LINKER	1	THCB-77		

ASSEMBLY DRG. No. CEE-THCB-79
SAMESTELTEK. No.

SUPERSEDES/REPLACES DRG. No. CEE-85/30753
VERVANG. TEK. No.

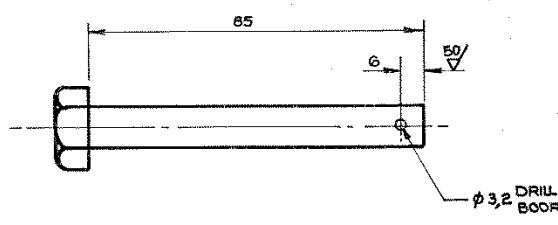
CLASS OF TYPE 5M2, 5M2A
KLAS. OF TYPE

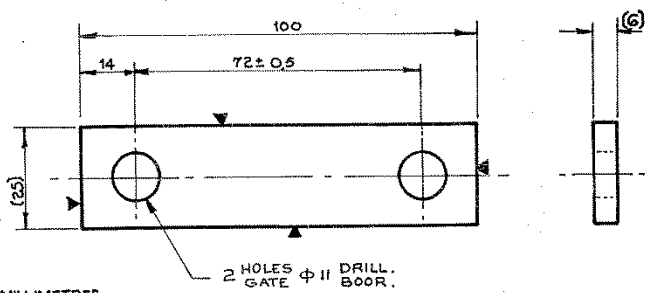
DRN.-GET. H. JONCK
ERD.-NOS. H. KRUGER
APPROVED GOEDGEK. W. PHILLIPS
OFFICE KANTOOR (N80TRIE)
RET. VERW. M221/65
DATE 66-02-04
SCALE 1:2

ROLLSTOCK RAIL-SPOOR ROLMAT.
LINKAGE ARM ASSEMBLY,
COMMUTATOR COVER
TRACTION MOTORS TYPES 178AZ, BY, DY, CX & EW
KOPPELARMSAMESTEL
KOMMUTATORDEKSTUK
TREKKRAGMOTORS TYPES 178AZ, BY, DY, CX & EW

STOCKS IT. No. 85/31339
MAG.

STOCKS IT. No. **RS** **BCA**
No. **12**

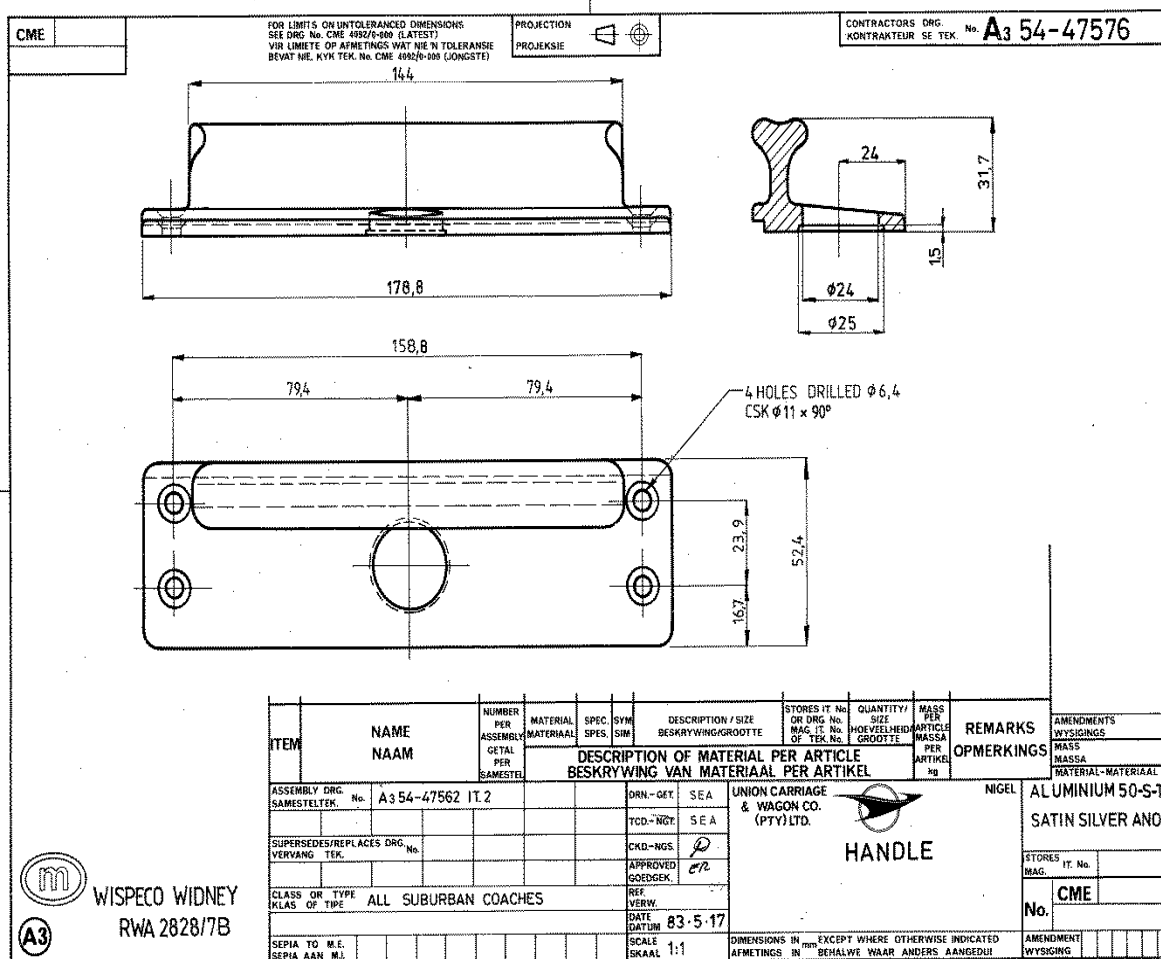
ORIGINAL FRAME SIZE OORSPRONKLIKE RAAMGROOTTE 267 x 180		(M)										
		<table border="1"> <tr> <th colspan="3">AMENDMENTS WYSIGINGS</th> </tr> <tr> <th>NO</th> <th>NAME NAAM</th> <th>DATE DATUM</th> </tr> <tr> <td>1A</td> <td>FHEYL</td> <td>93/08/27</td> </tr> </table>		AMENDMENTS WYSIGINGS			NO	NAME NAAM	DATE DATUM	1A	FHEYL	93/08/27
		AMENDMENTS WYSIGINGS										
NO	NAME NAAM	DATE DATUM										
1A	FHEYL	93/08/27										
<p>PREVIOUS AMENDMENT WAS 2. CLASS 4M2 REMOVED. ASSY. DRG. NO. WAS CEE-85/061256. MATERIAL STORES ITEM NO. 01/061588 REMOVED. D.O. REF. RS/93/62</p>												
<p>DIMENSIONS : MILLIMETRES AFMETINGS : MILLIMETER</p> <p>MATERIAL - MATERIAAL</p> <p>BOLT, STEEL, HEX. M10 x 125 BOUT, STAAL, SESK.</p> <p>STORES ITEM NO. _____ MAGASYNITEM</p>		<p>FINISH : ELECTROPLATE 10 AFWERKING : ELEKTROPLATEER VOLG B.S.1706 Zn10</p>										
<p>DRN. I. THOMPSON GET.</p> <p>TRCD. NGT. G. COETZEE</p> <p>CKD. I. Thompson</p> <p>CHIEF ELECTRICAL ENGINEER ELEKTROTEGNESE HOOFINGENIEUR</p>		<p>GEN. TOLERANCES : LIN ± 1 ALG. TOLERANSIES : ANG/HOEK —</p> <p>D.O. REF. TK-VERW. X75/174</p> <p>DATE 9-12-75</p> <p>ENG. IR. <i>Dayl</i> for n.s.</p>										
<p>A4</p> <p>A4</p>		<p>PIN, LINKAGE ARM COMMUTATOR COVER, TRACTION MOTOR PEN, KOPPELARM KOMMUTATORDEKSTUK, TREKKRAGMOTOR</p> <p>5M2, 5M2A RS-BCA-12 CLASS/ASSY. DRG. STORES MAGASYN ITEM NO. DRAWING TEKENING NO. CEE THCB-76</p>										

ORIGINAL FRAME SIZE OORSPRONKLIKE RAAMGROOTTE 267 x 180		(M)										
		<table border="1"> <tr> <th colspan="3">AMENDMENTS WYSIGINGS</th> </tr> <tr> <th>NO</th> <th>NAME NAAM</th> <th>DATE DATUM</th> </tr> <tr> <td>1</td> <td>K. LIT/4</td> <td>77-01-11</td> </tr> </table>		AMENDMENTS WYSIGINGS			NO	NAME NAAM	DATE DATUM	1	K. LIT/4	77-01-11
		AMENDMENTS WYSIGINGS										
NO	NAME NAAM	DATE DATUM										
1	K. LIT/4	77-01-11										
<p>DRG. NO. WAS TEK. CEE-THC-119 D.O. REF. X76/211 T.K. VERW. X76/211</p> <p>PREVIOUS AMENDMENT WAS 1. CLASS 4M2 REMOVED. ASSY. DRG. NO. WAS CEE-85/061256. D.O. REF. RS/93/62</p>												
<p>DIMENSIONS : MILLIMETRES AFMETINGS : MILLIMETER</p> <p>MATERIAL - MATERIAAL</p> <p>STEEL, PLATE 6 THK STAAL, PLAAT 6 DIK SPEC. CME 3-58 SPEK</p> <p>STORES ITEM NO. 11/- MAGASYNITEM</p> <p>OR COMMERCIAL GRADE OF HANDELSGRAAD</p>		<p>FINISH/AFWERKING :</p> <p>ZINC-CHROMATE AND BLACK ENAMEL SINKCHROMAAT EN SWART EMALJE</p>										
<p>DRN. I. THOMPSON GET.</p> <p>TRCD. NGT. G. COETZEE</p> <p>CKD. I. Thompson</p> <p>CHIEF ELECTRICAL ENGINEER ELEKTROTEGNESE HOOFINGENIEUR</p>		<p>GEN. TOLERANCES : LIN ± 1 ALG. TOLERANSIES : ANG/HOEK —</p> <p>D.O. REF. TK-VERW. X75/174</p> <p>DATE 9-12-75</p> <p>ENG. IR. <i>Dayl</i> for n.s.</p>										
<p>A4</p> <p>A4</p>		<p>PLATE, SIDE, LEFTHAND, LINKAGE ARM COMMUTATOR COVER, TRACTION MOTOR PLAAT, SY, LINKER, KOPPELARM KOMMUTATORDEKSTUK, TREKKRAGMOTOR</p> <p>5M2, 5M2A RS-BCA-12 CLASS/ASSY. DRG. STORES MAGASYN ITEM NO. DRAWING TEKENING NO. CEE THCB-77</p>										

ORIGINAL FRAME SIZE OORSPRONKLIKE RAAMGROOTTE 267 x 180		m		AMENDMENTS WYSIGINGS	
		NO		NAME	DATE
		1.		N. Lin/L	77-01-11
DIMENSIONS : MILLIMETRES AFMETINGS : MILLIMETER MATERIAL - MATERIAAL STEEL, PLATE 6 THK STAAL, PLAAT 6 DIK SPEC CME 9-88 STORES ITEM NO. 11/- OR COMMERCIAL GRADE OF HANDELSGRAAD		DRG. NO.		NOWAS	
		CEE-THC-120		D.O. REF. x76/211	
FINISH/AFWERKING : ZINC-CHROMATE AND BLACK ENAMEL. SINKCHROMAAT EN SWART EMAAL.		T.K. VERW.		x76/211	
		-1A		FHEYL 83/08/27	
GEN. TOLERANCES: LIN ± 1 ALG. TOLERANSIES: ANG/HOEK -		PREVIOUS AMENDMENT WAS 1.		CLASS 4M2 REMOVED.	
		ASSY. DRG. NO. WAS CEE-85/061256.		D.O. REF. RS/93/62	
DRN. I. THOMPSON GET.		TRCD. G. COETZEE NGT.		5M2, 5M2A RS-BCA-12 CLASS/ASSY. DRG.	
CKD. I. THOMPSON NGS.		DATE 9-12-75 DATUM		STORES MAGASYN ITEM NO.	
CHIEF ELECTRICAL ENGINEER ELEKTROTEGNIËSE HOOFINGENIEUR S. R. JOHANNESBURG		PLATE, SIDE, RIGHTHAND, LINKAGE ARM COMMUTATOR COVER, TRACTION MOTOR		DRAWING NO. CEE	
4 4		PLAAT, SY-, REGTER, KOPPELARM KOMMUTATORDEKSTUK, TREKKRAGMOTOR		THCB-78	

13.25 M00076426 - handle, door, vehicular; type inner sliding door grip, dimensions 31.7 x 52.4 x length 178.8 mm, material plastic, special features conforms to drawing : A3 54-47562/latest





- 13.26 M00012432 - key, switch: type: master controllers and motor cut-out:
drawing: CEE-THK-20/latest: equipment used on electric locomotive
5e, 5e1, 6e, 6e1, 8e, motor coach 5m2, 5m2a

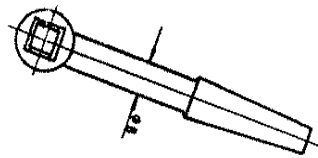


- 13.27 M00015968 - key, switch: type: guard: (rad gk1) used on 10m3/10m5 motor coaches

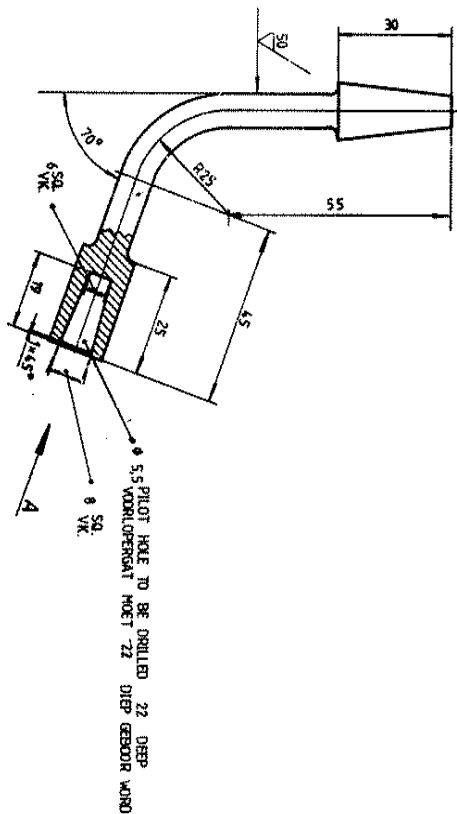


- 13.28 M00064783 - key: type: carriage, material: steel: drawing: CME 67/24350-768/latest: unit of issue: each

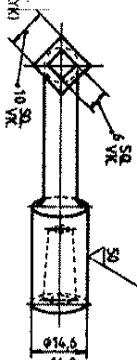




VIEW IN DIRECTION OF ARROW A
ADJUSTED IN SETTING W/TH PYL



-CASE 144688, 04, 04/06/00, C, TEMPER 200°C, H.R.C. 35
 DOPEYCHAK, GLE GERBUS 800°C, TEMPER 200°C, H.R.C. 35
 ALL SHAP DEES TO BE REMOVED
 ALE SPEED SAME HGT VERINDER WORD
 VAPORBLAST AND DIP IN RUST INHIBITOR (ELECTLY OR SIMILAR)
 DASHES/BLANK END DOWEL IN ROSSWETTER/ELECTLY OF SPOONED IN
 "SAT-SAT" BE STRIPPED ON SQUARE SECTION USING 3mm LETTERS
 HGT 1mm LETTERS ON WIERAAR/END GASTHETTEL WORD



OR
OF 11: 21532

ASSEMBLY DNG. No.		NATIONAL STOCK No.		IN. S. No.		STORAGE ITEM No.	
SUBSTITUTION		DNG. - DET.		R.H.P.		CARRIAGE RYTUIG	
SUPERSEDES/REPLACES DNG. No.		TOL. - NOT.		R.H.P.		S.A.R. - S.A.S.	
VERMADOY TER.		CND - MOD.		D.G. L.		PRETORIA	
CLASS ON TYPE		APPROVED		GOODER.		KEY - SLEUTEL	
READ OF THE		NO.		11860		CARRIAGE KEY - RYTUISLEUTEL	
CLASS ON TYPE		DATE		13-02-16			
SERIAL NO. W.I.		SCALE		1:1			
DIMENSIONS IN mm		EXCEPT WHERE OTHERWISE INDICATED		APPEARINGS IN		BRIEFNAME WHAT ADDRESS, LANGEBU	
MATERIAL - MATERIAL		STEEL, SPEC. CME, SYM. 7		STEEL, SPEC. 9		SYM. 7	
ROUND		16		131			
MAG. 17		11/00/7771		6			
CME		67					
No. 243D - 768							

NOTES ADDED
NOTAS BYEVOEG
436 CZR 16/3/2/1
1986--1 -

- 13.29 M00075964 - bolt, barrel: dimensions: length 305 mm, material: steel, special features: Brenton pattern, shoot diameter 13mm



- 13.30 M00101288 - key, type guard control key, special features used on 10m5 motor coach, grooves and projections to be same as the ones that are presently being used,



- 13.31 M00101289 - key; type driver control key, special features used on 10m5 motor coach, with magnetic shaft



- 13.32 M00032192 - key; type controller, material conforms to drawing: CEE - THT - 147 / latest; equipment used on motor coach 5m2a, push button switch box



AMENDMENTS		WYSIGINGS	
NO.	NAME	DATE	
6	A JOUBERT	81-09-20	

MACHINING SYMBOLS	
ALTERED	MASJNEERSIMBOLE
VERANDER	VERANDER
NOTE 4	DELETED
OPM.	DEURGEHAL
D.O. REF.	M 82 / 224
TK-VERW.	M 82 / 224

7	8
ASSY. DRG. NO. CE NO. A	84-07-06
23/5905 REMOVE.	
SAMEST. - TEK. NO. CE NO.	
A23/5905 VERWYDER.	
D.O. REF.	M84/139.
TK-VERW.	

CE NO. A386/15905 VEL 1+2
CE NO. A 41 / 15870
CE NO. C 49 / 20041
CE NO. C 27 / 20029
CE NO. C 17 / 20031
1E, 4E, 5E, 4M1,
4M2, 5M2A (S1, S4-8)
CLASS / ASSY. DRG.
KLAS / SAMEST-TEK.
MODULUS ITEM NO.
(M) 85 / 26916
PREVIOUS ITEM NO.
VORIGE
85 / 119496
DRAWING NO. CEE-
TEKENING
THT-147

NOTES.

1. CONTROL SWITCH EQUIPMENT MUST ALLOW EASY APPLICATION AND FREE OPERATION OF KEY (WITHOUT UNNECESSARY SLACKNESS) FOR THE FULL RANGE OF LIMITS LAD DOWN ON THIS DRAWING.
2. LIMITS TO SWITCH SPINDLE 9,52±8,05.
3. SMOOTH THIS SURFACE BEFORE PLATING.
- ~~4. FOR SLIGHT CONTROL SWITCH CONES - SEE NOTE 4.~~
5. FINISH: CHROMIUM PLATED (DUL.) WHOLE ITEM.

OPMERKINGS.

1. KONTROLESKAKELAARTOERUSTING MOET VRYLIKE AANWENDING EN WERKING VAN DIE SLEUTEL TOELAAT (SONDER ONNATUURIGE SPELING) VIR DIE VOLLE BEPERKINGSOMWANG 9,505 IN HIERDIE TEKENING AANGEDEEL.
2. PERKE AAN SKAKELAARSPIJL 9,52±8,05.
3. MAAK HIERDIE GEDEELTE GELYK GLAD VOORDAT VERKROMING GEDOEN WORD.
- ~~4. VIR SLEUTEL IN KONTROLESKAKELAARSKAKEL - KEEK TEK. N. CEE. 1471.~~
5. AFWERKING: VERCHROM (DUL) HELE ITEM.

GENERAL TOLERANCES. LIN ± 0,5.

ALGEMEENE TOLERANSIES. LIN ± 0,5.

BRU. A15. C.B. ELB. ENG. TAB. IR.

DO. REF. DATE 23-3-55 M.H.

TK-VERW. DATUM

CHIEF ELECTRICAL ENGINEER JOHANNESBURG.

ELEKTRIESE HOOFINGENIEUR

DIMENSIONS: MILLIMETRES.

AFMETINGS: MILLIMETER.

MATERIAL - MATERIAL.

MILD STEEL (FORGED). FORGING 46.46/2392.

SAGTE STAAL (GESMEE) SLEESTUK 46.46/2392.

SPEC. CME 9 SIM. 7 STORES ITEM 11/-

SPEC. OR/OR

SPHEROIDAL GRAPHITE IRON.

SPEROIDALE GRAFIETYSIER.

TO. BS. 2789 GRADE SNG 24/17

VOLG. SNG 24/17

SOUTH AFRICAN TRANSPORT SERVICES

SUID-AFRIKAANSE VERVOERDIENSTE

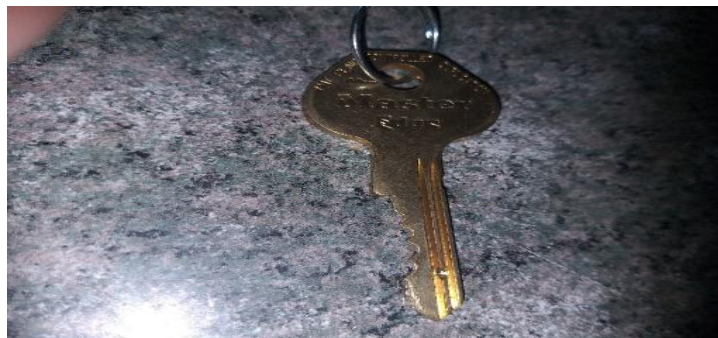
- 13.33 M00002253 - padlock: dimensions: wide 50 x length 60 x thick 26 mm, shackle material: stainless steel, body material: brass: ovaloid body, close shackle 8 mm diameter. The plug & key section shall be similar to and directly interchangeable with union type 524. The broach of which is to be reserved for the sats



- 12.34 M00100002 - key, lock; type high voltage security, usage design special reserved key to open all PRASA HT locks (48031843) and LT locks (48031855); sans 1533:2005 category 5 - each key to be supplied with a unique serial number



- 12.35 M00100003 - key, lock; type low voltage security, special features security of ladders and low voltage kiosks, usage design special reserved key to open all PRASA LT locks (48031855), design type sans 1533:2005 category 5; each key to be marked "lt"



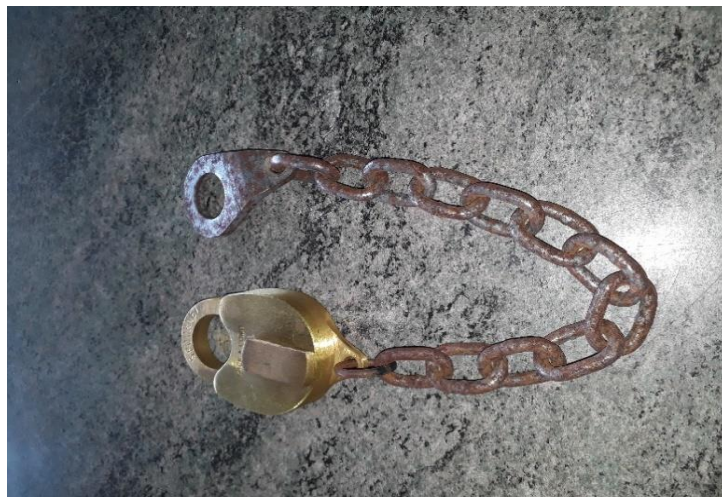
- 12.36 M00100004 - key, lock; type substation and track switch, usage design special reserved key for PRASA (electrical); p/n: key ka 624632 for abus diskus 20/80 lock abus; key to be stamped "HT" and with unique serial number - one key to fit all abus diskus HT locks (48031729)



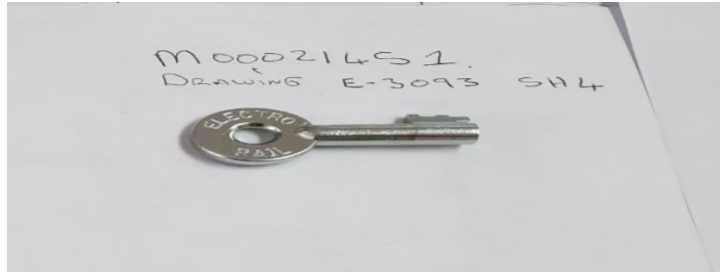
- 12.37 M00106572 - padlock; type mul-t-lock g47 high security mechanical, body material brass, dimensions wide 40 mm, furnished items keyed alike padlock all padlocks fitted with plastic dust cover., shackle material harden boron alloy steel



- 12.38 M00000506 - padlock: furnished items: chain: drawing: CCE E3093 sheet 2 latest, drawing: CCE E3093 sheet 1 latest, drawing: CCE E3093 sheet 3 latest: new; equipment used on points and crossings specification number CCE 2/44/latest



- 12.39 M00021451 - key, lock; material brass - points and crossings key, lock: material: brass: drawing: E3093 sheet 4 latest: equipment used on points and crossings specification number CCE 2/44/latest



- 12.40 M00021453 – padlock: dimensions: 50 mm: master to operate under key configuration a1693 keyed alike approved list no 63 group 2 to quoted part number or equal users description for keys see item 3/6734 item no.03006669, equipment used on gates on permanent reserves garage doors tool & paint stores tool boxes barrows & bicycles line pay boxes makers part number 250d viro master no 1
PLEASE NOTE THIS LOCK IS WITHOUT THE KEY



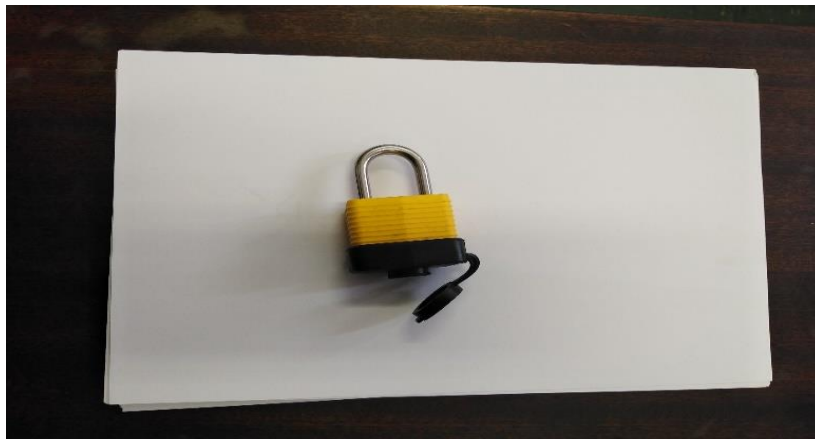
- 12.41 M00073532 – key, lock: type: tumbler, material: brass, special features: 4 pin: A1963; for master padlock in accordance with approved list no 63, to suit code setting, A1963, A1963 engraved; users description see item M00021453, equipment used on keyed alike



- 12.42 M00001244 - key, lock: type: pad: mfr: viro p/n: m024502/a8372: item to be die-stamped users description see item M00053918 for lock, equipment used on padlock no 2049 configuration sig



- 12.43 M00053918 – padlock-body material steel padlock: type: laminated, dimensions: wide 40 x length 45 mm, body material: steel: without keys; keyed alike to reserve key setting 2049 item to be die-stamped 2049, refer to item no M00001244 for key equipment used on for signal use only sig



- 12.44 M00100005 - padlock; type high voltage security, body material laminated steel with at least 20 micron plating thickness, dimensions width: at least 50 mm, features sans 1533:2005 category 5, furnished items open shackle with recordable 5 pin spool tumbler mechanism, shackle material boron steel - at least 8mm; to be die-stamped "HT" - keyway to be reserved for PRASA. Locks to be keyed alike, one special key to fit all HT locks. All locks to be supplied without keys