

Benämning <b>TEKNISKA DATA</b>	Blad nr/Sheet No <b>1/4</b>	Dokument nr/Document No <b>0 809 344</b>	Sensast Andr / Latest rev <b>0</b>																																																																															
Denomination <b>TECHNICAL DATA</b>	Uppgjord/Issued <b>Me16</b>	Kontroll/Checked <b>Adg</b>	Avt/Dept <b>911A 3</b>	Datum/Date <b>880824</b>																																																																														
<p><b>1. General Data:</b></p> <p>1.1 Design: Light-Metal Three-Wire Roller Race Bearing      1.2 Outer diameter: 1205 mm      1.3 Inner diameter: 940 mm      1.4 Height: 113 mm      1.5 Weight: approx. 128 kg.</p> <p><b>2. Materials:</b></p> <p>2.1 Bearing rings, parts 2 and 3: aluminum alloy, wa tensile strength min. 490 N/mm<sup>2</sup> yield point min. 440 N/mm<sup>2</sup> surfaces anodized in a DC sulphuric acid procedure, layer thickness min. 20 µm acc. to Bofors Standard Y3-10-3, not sealed. For painted surfaces, see General Assembly Drawing (paint application acc. to Bofors Standard Y4-35-9-600)</p> <p>Bearing ring, part 1: aluminum alloy, wa tensile strength: min. 490 N/mm<sup>2</sup> yield point: min. 440 N/mm<sup>2</sup> surfaces anodized in a DC sulphuric acid procedure, layer thickness min. 20 µm acc. to Bofors Standard Y3-10-3, sealed.</p> <p>2.2 Race wires, parts 5, 6: corrosion-resistant steel</p> <p>2.3 Rollers, part 7: corrosion-resistant steel</p> <p>2.4 Roller cage, part 4: plastic</p> <p>2.5 Part 9: steel, galvanised</p> <p>2.6 Parts 8, 10, 12, 13, 16, 17: corrosion-resistant steel</p> <p>2.7 Radial seals, part 11: Perbunan</p> <p>2.8 Tape seal, part 14: Perbunan</p> <p>2.9 Part 18: aluminum surfaces anodized in a DC sulphuric acid procedure, layer thickness min. 20 µm acc. to Bofors Standard Y3-10-3, not sealed. For painted surfaces, see General Assembly Drawing (paint application acc. to Bofors Standard Y4-35-9-600)</p> <p>2.10 Parts 19 and 20: aluminum</p> <p>2.11 Part 15: plastic.</p> <p>The a/m parts will be surface-treated with rust-protective wax acc. to Bofors standard H14-13,- see General Assembly Drawing.</p> <table border="1"> <tr> <td>(C) rvt/100-100/protective wax acc. to Bofors- standard H14-13 test part item 13a uppl. item 2ch</td> <td>1512</td> <td>Golster</td> <td></td> <td></td> <td></td> </tr> <tr> <td>(D) Item 7/11 part 15 plastic (was corrosion- resistant steel)</td> <td>7803</td> <td>1309</td> <td>1</td> <td></td> <td></td> </tr> <tr> <td>(E) Items 29, 7, 9, 10 modif.</td> <td>0905</td> <td>1309</td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td>1902</td> <td>1309</td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td>Item 1.6 1121 was 1161</td> <td></td> <td>1105 1980</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td>8307</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td colspan="2">HOESCH ROTHE ERDE SCHMIEDAG AG</td> <td>1977</td> <td>Date</td> <td>Name</td> <td>Technical Data for Bearing as per Drawing</td> </tr> <tr> <td colspan="2"></td> <td>Completed</td> <td>00.06.</td> <td>Knopp</td> <td>R40.16.1025.000.39 1306</td> </tr> <tr> <td colspan="2"></td> <td>Checked by</td> <td></td> <td></td> <td>Sheet 1 of 4</td> </tr> <tr> <td>Ändr. nr Rev No</td> <td>1</td> <td>2</td> <td>3</td> <td>4</td> <td>5</td> </tr> <tr> <td>ÄO-nr Rev. order No.</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Ursprungsoriginals format:</td> <td><input type="checkbox"/> A4</td> <td><input checked="" type="checkbox"/> A3</td> <td>Blad nr/Sheet No <b>1/4</b></td> <td>Dokument nr/Document No <b>0 809 344</b></td> <td>Sensast Andr / Latest rev <b>0</b></td> </tr> </table>					(C) rvt/100-100/protective wax acc. to Bofors- standard H14-13 test part item 13a uppl. item 2ch	1512	Golster				(D) Item 7/11 part 15 plastic (was corrosion- resistant steel)	7803	1309	1			(E) Items 29, 7, 9, 10 modif.	0905	1309					1902	1309							Item 1.6 1121 was 1161		1105 1980						8307							HOESCH ROTHE ERDE SCHMIEDAG AG		1977	Date	Name	Technical Data for Bearing as per Drawing			Completed	00.06.	Knopp	R40.16.1025.000.39 1306			Checked by			Sheet 1 of 4	Ändr. nr Rev No	1	2	3	4	5	ÄO-nr Rev. order No.						Ursprungsoriginals format:	<input type="checkbox"/> A4	<input checked="" type="checkbox"/> A3	Blad nr/Sheet No <b>1/4</b>	Dokument nr/Document No <b>0 809 344</b>	Sensast Andr / Latest rev <b>0</b>
(C) rvt/100-100/protective wax acc. to Bofors- standard H14-13 test part item 13a uppl. item 2ch	1512	Golster																																																																																
(D) Item 7/11 part 15 plastic (was corrosion- resistant steel)	7803	1309	1																																																																															
(E) Items 29, 7, 9, 10 modif.	0905	1309																																																																																
	1902	1309																																																																																
			Item 1.6 1121 was 1161		1105 1980																																																																													
					8307																																																																													
HOESCH ROTHE ERDE SCHMIEDAG AG		1977	Date	Name	Technical Data for Bearing as per Drawing																																																																													
		Completed	00.06.	Knopp	R40.16.1025.000.39 1306																																																																													
		Checked by			Sheet 1 of 4																																																																													
Ändr. nr Rev No	1	2	3	4	5																																																																													
ÄO-nr Rev. order No.																																																																																		
Ursprungsoriginals format:	<input type="checkbox"/> A4	<input checked="" type="checkbox"/> A3	Blad nr/Sheet No <b>1/4</b>	Dokument nr/Document No <b>0 809 344</b>	Sensast Andr / Latest rev <b>0</b>																																																																													

## DHANUSH

Blad nr/Sheet No 214 Dokument nr/Document No 0 809 344

Senaste Andr/  
Latest rev

0

och må ikke utan Aktiebolaget Bolts skrivinga medgåndas  
för födje man kopparas, reproduceras eller på något annat  
sätt. Utryckta Orientationskoderna att bortas

3. Precision Data: (measured over the race system during rotation at 293 K  $\pm$  5 K)

3.1 Axial runout, measured at the contact surface of part 1: max. 0.20 mm

3.2 Axial runout, measured at the contact surface of part 2: max. 0.20 mm

For a length of 300 mm - relative to the bearing circumference -, the axial runout may be max. 0.10 mm.

3.3 Radial runout, measured at the bearing spigots of parts 1 and 2: max. 0.25 mm each

## 4. Preload of the Race System:

4.1 Axial and radial: 0 mm to slight preload

4.1.1 Admissible value from elastic deformation of all bearing parts when measured between two load plates weighing 1.8 t each: max. 0.11 mm.

## 5. Seals:

5.1 Spring-preloaded radial seals (part 11) against splash water, dirt, etc.  
Admissible leakage: unspecified and unchecked.  
The mating structure must adequately protect all the seals against any mechanical damage.

## 5.2 Tape seal, part 14.

## 6. Range of Operating Temperature:

Admissible operating temperatures from 233 K to 343 K, a uniform change in temperature of all bearing rings provided.

## 7. Lubrication:

Upon supply, the entire inner space of the bearing including the lubricating holes is filled with the grease "Isoflex Topas HD 52".

For re-lubrication, see item 3 of the Maintenance Instructions 840.16.1075.000.39.1307.

## 8. Load Data:

Bearing axis of rotation: vertical

## 8.1 Load case: firing at 0° to horizontal line:

axial load:	50 kN
radial load:	500 kN
tilting moment:	307 kNm

Drawing No. 840.16.1075.000.39.1306				Revision Index
HOESCH ROTHE ERDE SCHMIEDAG AG	1977 Competent Checked by	Date 30.06. Knopp	Name Anv. Mekaniker Sheet 2 of 4	f

Den här dokumentet får inte kopieras av aktiebolaget Bolts. Om kontraventionen vidtas kan den som gjort det straffas med döden. Den som kopierar dokumentet kan straffas med döden.

## DHANUSH

Blad nr./Sheet No 3/4 Dokument nr./Document No 0 809 344

Senaste and/  
Latest rev

0

Konstruktionen till denna ritning är Aktiebolaget Bolars eg...  
 och måste uteslutas omkopieras, reproduceras eller på något ann...  
 för handi man, kopieras, reproduceras eller på något ann...  
 sätt överträda Kommer att beröva

8.2 Load case: firing at 30° to horizontal line:  
 axial load: 300 kN  
 radial load: 430 kN  
 tilting moment: 463 kNm

8.3 Load case: firing at 55° to horizontal line:  
 axial load: 460 kN  
 radial load: 290 kN  
 tilting moment: 540 kNm

8.4 Load case: firing at 70° to horizontal line:  
 axial load: 400 kN  
 radial load: 130 kN  
 tilting moment: 400 kNm.

9. Torque Data: (measured at 293 K ± 5 K)  
 On a plane surface and under a centrical thrust load of  
 50 kN, with the seal gliding surfaces adequately greased,  
 the bearing torque including seals will be:

9.1 max. 300 Nm during start } estimate figures.  
 9.2 max. 250 Nm during running }

## 10. Mating Structure:

10.1 The mating structure must have sufficient self-rigidity in every direction and must be stress-relieved.

The contact surfaces and the spigots of the mating structure must be of a quality which ensures that, when considering the mentioned preload, no locking of the race system may occur which would be followed by an increasing torque and final destruction of the bearing.

We take it for granted that the upper as well as the lower mating structure in which the prototype bearings were successfully tested, have not been modified for the series with respect to the quality of the contact surfaces and spigots or with regard to self-rigidity.

10.2 From calculation, bolts of class 12.9 are required for mounting the bearing.

The bolt preload shall be 284 kN.

Our bolt calculations (according to VDI Instruction 2230 with modifications) are based:

on the clamping lengths  
 for the outer bolt circle: 80 mm

for the inner bolt circle: 80 mm

on the load cases 8.1 to 8.4  
 and a friction of  $\mu_{total} = 0.125$ .

It has been assumed that higher loads will not occur.  
 In order to achieve the admissible tension below the bolt head or nut, washers of sufficient strength shall be used.

After the functional test of the unit under the max. admissible loads, the bolt preload must be checked and the bolts must be re-tightened, if necessary.

HOESCH ROTHER ERDE SCHMIEDAG AG	1977 Levered	Date 30.06.	Name Knapp	Technical Data for Bearing as per Drawing 840.16.1075.000.39.1306	Revision Index f
				Sheet 3 of 8	

The design according to this drawing is the property of Aktiebolaget Bolars and must not be disclosed to any third party copied, reproduced or used in any manner whatever without the written consent of Aktiebolaget Bolars. Contravention will be prosecuted

Ureprungsooriginalat format	<input type="checkbox"/> A4	<input checked="" type="checkbox"/> A3	Blad nr./Sheet No 3/4	Dokument nr./Document No 0 809 344	Senaste and/ Latest rev

Konstruktörön är inte den som ritat av Aktiebolaget Bolts & Agency  
och måste utan Aktiebolaget Bolts skriftliga medirande utses  
för att man, kopiera, reproduceras eller på något annat  
utnyttjas. Överstående kommer att bantas.

The design according to this drawing is the property of Aktiebolaget  
Bolts and must not be disclosed to any third party, copied,  
reproduced or used in any manner whatever without the written  
consent of Aktiebolaget Bolts. Convenant will be prosecuted

10.3 In order to avoid contact corrosion in connection with the aluminum rings, the mounting bolts shall be protected by suitable means, e.g. by a sealing paste, by dipping in Tectyl 506, or by a mechanical galvanisation avoiding hydrogen brittling.

10.4 The tightening torque of the retaining bolts (part 9) is:

$$M_A = 290 \text{ Nm.}$$

#### 11. Work's inspection:

Apart from the dimensions of the mating structure as given in the bearing drawing, all points framed  will be inspected by HRS' work's inspection. (The inspection certificate will be placed at the customer's disposal.)

Any other tests, certificates, evidences of strength, or any other data must be agreed upon separately.

Date / Year				Rev	Stamp	Date / Name
HOESCH ROTHER ERDE SCHMIEDAG AG	3977	Date	Name	Technical Data for Bearing as per Drawing		Revision Index
	Competent:	30.06.	Knopp	B40.16.1075.000.39.1306		9
	Chefinskrift			Ans. för tekniskt arbete nr. B40.14	Sheet 4 of 4	

## DHANUSH

Benämning <b>SKÖTSELINSTRUKTION</b>	Blad nr/Sheet No. <b>1</b>	Dokument nr/Document No. <b>0 809 345</b>	Senaste ändr./ Latest rev. <b>0</b>
Denomination <b>SERVICE INSTRUCTION</b>	Uppgjord/Issued <b>Mer 16</b>	Kontroll/Checked <b>Adg</b>	Avt./Dept. <b>PUA 3</b>

**1. Condition upon Delivery**

1.1 All the inner spaces of the bearing and the lubricating holes have been filled with the grease "Isoflex Topas NB 52".

1.2 The surfaces and parts specified in the General Assembly Drawing have been coated with the anti-corrosion wax "Hypax TP10-B".

**2. Installation**

The space before the seals part 11 shall also be filled with the grease "Isoflex Topas NB 52".

**3. Maintenance**

The bearing has to be re-lubricated every 2 years as follows:

After removing the socket set screws (part 15), the bearing shall be re-lubricated through the lubricating holes for the raceway system using approx. 420 cm<sup>3</sup> (approx. 70 cm<sup>3</sup> per grease hole) of the grease "Isoflex Topas NB 52" while slew-ing the bearing through the possible slewing range of ± 30°.

Thereafter, the lubricating holes shall be locked again with the socket set screws.

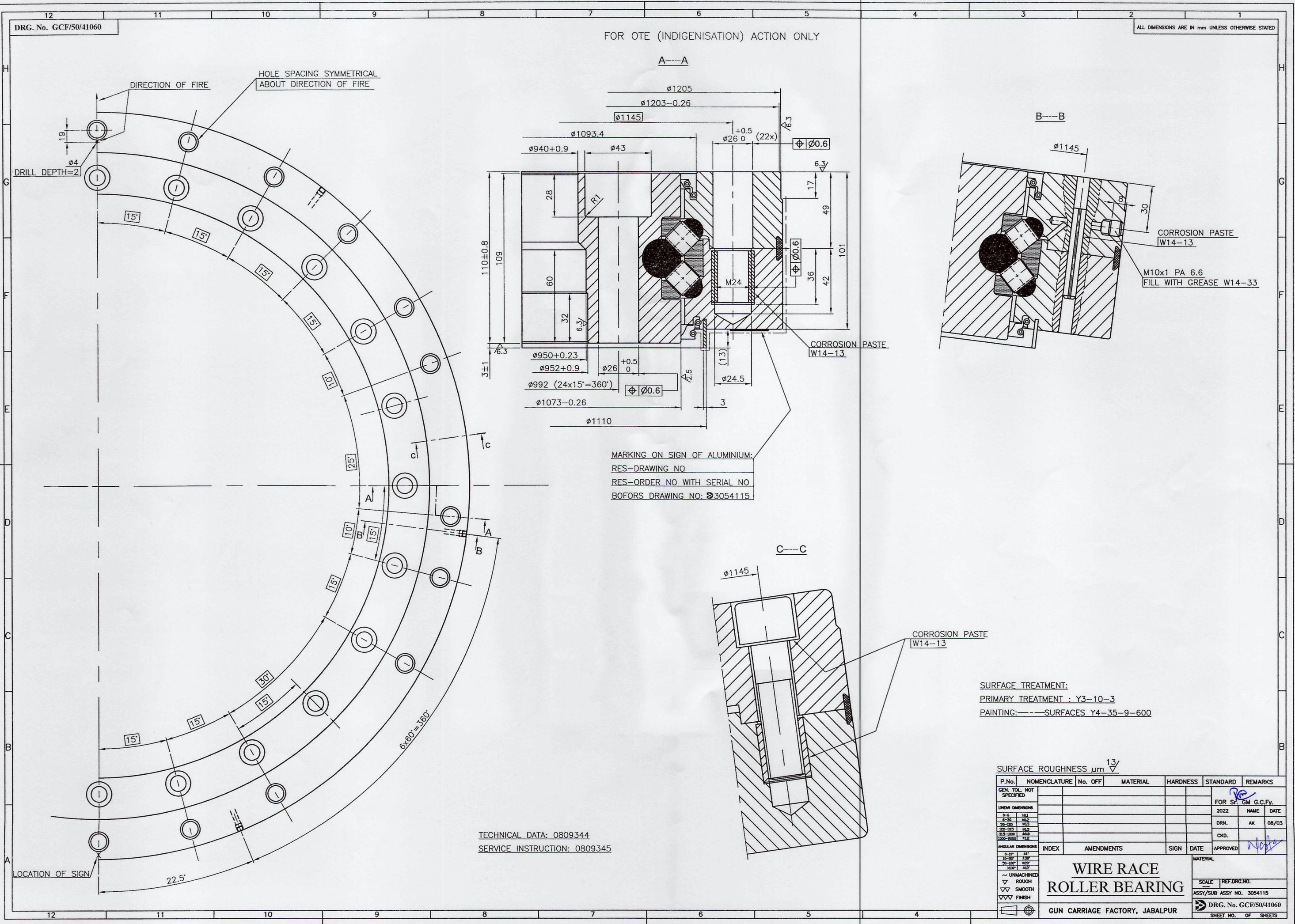
**4. General Inspection**

During general inspection of the unit, the bearing shall be dismounted and returned to the manufacturer's works.

When the bearing has been stripped, all the bearing parts will be cleaned and checked. During re-assembly, it will be treated as mentioned above under item 1. Since, moreover, the bearing clearances, running accuracies, etc., will be checked by special instruments and re-adjusted, if necessary, a bearing checked this way in the manufacturer's works is functionally equal to a new bearing. If, in exceptional cases, the bearing cannot be returned to the manufacturer's works, said checking should be done by an IRS service engineer or, respectively, according to his instructions.

C. Grease changed	09.05.1988	Reo.	<input type="checkbox"/>		
B. Item 3 socket set screw two hex. head screw plus	28.07.1988	Reo.	<input type="checkbox"/>		
A. changed to "full lubrication filling"	07.02.1982	Reo.	<input type="checkbox"/>		
Index Change	Date	Name	Index	Change	Date Name
HOESCH	1982	Date	Name	Maintenance Instruction as per Drawing	Revision Index
ROTHE ERDE	Competent	05.02.	Knapp	840.16.1075.000.39.1307	C
SCHMIEDAG AG	Checked by			All rights reserved acc to DIN 34	Sheet 1 of 1

Ändr. nr Rev. No.	1	2	3	4	5
ÄO-nr Rev. order No.					
Blad nr/Sheet No.	Dokument nr/Document No.				
Ursprungsoriginalets format: <input type="checkbox"/> A4	<input checked="" type="checkbox"/> A3	1	0 809 345	Senaste ändr./ Latest rev. 0	





# Bofors standard

W14-13

Datum/Date	Dok.nr./Doc. No.
1981-10-01	38 006 319
Utgåva/Issue	Sida/Page
4	1 (1)

AB BOFORS • STANDARD • BOX 500 • S-881 80 • BOFORS • SWEDEN • EFTERTRYCK UTAN SKRIFTLIGT MEDGIVANDE FORBJUDS • COPYRIGHT

ROSTSKYDDANDE VAX	RUST PREVENTING WAX
-------------------	---------------------

**ANVÄNDNING**

Används som skydd mot galvanisk korrosion i skruvförband, fästplan m m.

**APPLICATION**

Is used as protection from galvanic corrosion in screw joints, attachment surfaces etc.

**TEKNISKA DATA**

Färg ..... Mörkbrun

Droppunkt ..... 60 °C

**TECHNICAL DATA**

Colour ..... Dark brown

Dropping point ..... 60 °C

**YRKESHYGIENISK INFORMATION**

Undvik långvarig hudkontakt.

**INFORMATION OF INDUSTRIAL HYGIENE**

Avoid prolonged skin contact.

**SAMMANSÄTTNING**

Oxiderat vax löst i paraffinolja.

**COMPOSITION**

Oxidized wax dissolved in liquid paraffin.

**MÄRKNING**

Varje förpackning skall vara försedd med uppgift om tillverkare, innehåll, vådighet, Bofors beteckning, partinummer och tillverkningsdatum.

**MARKING**

Each package shall be marked with data about manufacturer, contents, toxicity, Bofors's designation, lot number and date of manufacture.

**KOMPLETTERANDE UPPLYSNINGAR****SUPPLEMENTARY INFORMATION**

Metodnummer Method number	Metodbeteckning Method designation	Enhet Unit	Beteckning Designation	Artikelnummer Article number
11 500 543	W14-13-A	-	-	-
-	-	KG	W14-13-1	11 001 586

**Angivelsesätt****How to state**

På ritning Smord W14-13-A  
 På specifikation Metodnumret  
 eller reg anmodan för detaljritning Rostskyddsvax  
 Benämning Behövs inte  
 Registerkort för farligt gods  
 Inköpsförbehåll

On drawing Greased W14-13-A  
 On specification or registration request for detail drawing The method number  
 Denomination Rust prev. wax  
 Index card for dangerous goods Not needed  
 Purchasing reservations



Datum/Date 1986-04-15	Dok.nr./Doc. No. 38 012 023
Utgåva/Issue 3	Sida/Page 1 (2)

AB BOFORS • STANDARD • BOX 600 • S-401 80 • BOFORS • SWEDEN • EFTERTRYCK UTAN SKRIFTLIGT MEDGIVANDE FÖRSBJUDS • COPYRIGHT

SMÖRFETT	GREASE
----------	--------

## ALLMÄNT

Fettet har speciella korrosionsskyddstillsatser och kan användas i såväl varmt som kallt klimat. Det innehåller syntetisk olja som är fri från estrar.

## GENERAL

The grease has special additives for corrosion protection and can be used as well in a warm as in a cold climate. It contains a synthetic oil which is free from esters.

## ANVÄNDNING

Fettet används för långtidssmörjning av instrument, finmekanisk apparatur (t ex resolvertransmissioner), mekanismer, hög- och lågbelastade glid- och rullningslager samt andra komponenter där höga krav ställs på korrosionsskydd, låg friktion och bredd temperaturområde.

## APPLICATION

The grease is used for long-term lubrication of instruments, precision apparatus (for example resolver transmissions), mechanisms, high and low loaded plain and roller bearings and also other components where high demands are made on corrosion protection, low friction and a wide range of temperature.

## TEKNISKA DATA

Färg ..... Ljusbeige, halvtransparent  
 Konsistens, NLGI ..... 2  
 Penetration ..... 280 ±15  
 Droppunkt ..... Min 240 °C  
 Temperaturområde ..... -60 °C - +160 °C  
 Rostskyddande förmåga i fuktig atmosfär ..... Mycket god  
 Vattenbeständighet ..... Mycket god  
 Oxidationsbeständighet ... Mycket god  
 Yrkeshygienisk information ..... Farligt att förtära. Undvik långvarig hudenhet

## TECHNICAL DATA

Colour ..... Light beige, semi-transparent  
 Consistency, NLGI ..... 2  
 Penetration ..... 280 ±15  
 Dropping point ..... 240 °C min  
 Range of temperature ..... -60 °C - +160 °C  
 Rust-preventing ability in damp atmosphere ..... Very good  
 Water resistance ..... Very good  
 Resistance to oxidation ... Very good  
 Information of industrial hygiene ..... Dangerous to eat. Avoid prolonged skin contact

## SAMMANSÄTTNING

Syntetisk olja, förtjockare (bariumkomplex) och övriga tillsatser.

## COMPOSITION

Synthetic oil, thickener (barium complex) and other additives.

## MÄRKNING

Varje förpackning skall vara försedd med uppgift om tillverkare, innehåll, vädligitet, Bofors beteckning, partinummer och tillverkningsdatum.

## MARKING

Each package shall be marked with data about manufacturer, contents, toxicity, Bofors' designation, lot number and date of manufacture.

**Bofors standard****W14-33**

Utgåva/Issue	Sida/Page
3	2

## KOMPLETERANDE UPPLYSNINGAR

## SUPPLEMENTARY INFORMATION

Artikelnummer Article number	Benämning Denomination	Beteckning Designation	Enhetskod Unit code	Förpackning Packaging	Metodnummer Method number
11 001 816	Smörjfett <i>Grease</i>	W14-33-2	KG	-	
11 001 817	Smörjfett <i>Grease</i>	W14-33-1	ST PCS	Patron om 400 g <i>Cartridge of 400 g</i>	
-	Smörjningsmetod <i>Greasing method</i>	W14-33-A	-	-	11 500 500

## Angivelsesätt

## How to state

På ritning

Smord W14-33-A

On drawing

Lubricated W14-33-A

På specifikation  
eller reg anmodan  
för detaljritning

Metodnumret

On specification or  
registration request  
for detail drawing

The method number

## Inköpssförbehåll

## Purchasing reservations



Datum/Date	Dok.nr/Doc. No.
1978-11-15	38 007 776
Utgåva/Issue	Sida/Page
1	1 (2)

## ANODISERING I SVAVELSYRA

## ANODIZING IN SULPHURIC ACID

## REFERENS

FMV:s norm Yb 1104 utg. 2.

## REFERENCE

FMV's standard Yb 1104, edition 2.

## ANVÄNDNING

Används för att förbättra korrosionsskyddet hos aluminium och dess legeringar.

Oxidskiktet som bildas kan infärgas. Skiktets egenskaper varierar med grundmaterialets sammansättning, struktur och homogenitet. Det utgör dessutom ett gott underlag för målning.

Om dekorativa krav ställs på anodiseringen, fordras speciella aluminiumkvaliteter, vilka tillverkas, hanteras och transportereras på särskilt sätt.

Oxidskiktet är hårt och sprött varför det skadas om det utsätts för deformation t ex bockning, stukning eller stansning. Detaljer som anodiseras skall därför normalt vara färdigbearbetade.

Vid tillverkningen måste hänsyn tas till den mättförändring som erhålls vid anodiseringen. Måttökningen motsvarar ca 1/3 av oxidskiktets tjocklek.

## APPLICATION

Is used for improving the corrosion protection at aluminium and its alloys.

The oxide layer which is formed might be coloured. The properties of the layer vary with the composition of the basic material, structure and homogeneity. Besides it makes a good basis for painting.

If demands of decorative nature are made upon the anodizing, special qualities of aluminium are needed. These should be manufactured, handled and transported in a special manner.

The oxide layer is hard and brittle why it is damaged if it is deformed for example by bending, upsetting or punching. Details being anodized shall therefore normally be ready-tooled.

At the producing consideration must be taken to the change of dimension obtained at the anodizing. The increase of dimension answers to about 1/3 of the thickness of the oxide layer.

## TEKNISKA DATA

Spridningsförmåga ..... God. Hjälpkatoder erfordras för att ett felfritt oxidskikt skall utbildas i längre rör och små hål  
 Vidhäftning ..... Mycket god. Vid deformation, t ex böjning, spricker oxidskiktet  
 Utseende (ej infärgat) .. Transparent, ljusgrått-mörkgrått skikt. Sammansättning, struktur och homogenitet inverkar liksom ytstrukturen  
 Färgbarhet ..... Mycket god för läglegerat aluminium. Legeringar med höga halter av tungmetaller eller kisel erhåller svagare och mattare färgton. Utseendet påverkas också av ytstrukturen  
 Hårdhet ..... Mycket hård  
 Nötningsbeständighet .... Mycket god  
 Värmebeständighet ..... Ca 200 °C

## TECHNICAL DATA

Throwing power ..... Good. Auxiliary cathodes are needed to get a perfect oxide layer also in long tubes and small holes  
 Adhesion ..... Very good. At deformation, for example bending, the oxide layer will crack  
 Appearance ..... Transparent, light grey-dark grey layer. Composition structure and homogeneity have influence as well as the surface structure  
 Colouring ability ..... Very good for low alloyed aluminium. Alloys with high contents of heavy metals or silicon receive a weaker and duller colour shade. The appearance is also affected by the surface structure  
 Hardness ..... Very hard  
 Abrasion resistance ... Very good  
 Heat resistance ..... 200 °C approx.



Utgåva/Issue	Sida/Page
1	2

Elektriska egenskaper .... Elektriskt isolerande  
 Korrosionsbeständighet ... Mycket god - God, beroende på basmaterialets sammansättning och oxidskiktets tjocklek

Electrical properties ... Electrically insulating  
 Corrosion resistance ... Very good - Good, depending on the composition of the basic material and the thickness of the oxide layer

## BETECKNING

## 1. Naturell (ej infärgat skikt)

Beteckning Designation	Rekommenderad användning Recommended application	Nom skiktjocklek i µm Nom. thickness of coat in µm
Y3-10-1	Skyddad miljö, ringa korrosionspåkänning Protected, non-corrosive environment	7
Y3-10-2	Mild korrosionspåkänning Mildly corrosive environment	15
Y3-10-3	Kraftig korrosions- och nötningsspåkänning Severe corrosive and abrasive environment	25

## 2. Infärgat skikt, Y3-10-3

Kulör Colour	Beteckning Designation
Gul 111 Yellow	Y3-10-3-111
Röd 301 Red	Y3-10-3-301
Grön 615 Green	Y3-10-3-615
Olivgrön 623 Olive-green	Y3-10-3-623
Svart 903 Black	Y3-10-3-903

## FORDRINGAR

## 1. Skiktjocklek

Beteckning Designation	Tillåtna gränsvärden i µm Allowed limit values in µm
Y3-10-1	5-10
Y3-10-2	10-20
Y3-10-3	20-30

## 2. Utseende

Inga salter eller smetande färgpartiklar får förekomma på detaljerna.

## 3. Tätning

Tätningen skall vara väl utförd.

## 4. Måtkontroll

Toleransatta mått skall kontrolleras i den utsträckning som krävs för garanti av måtträktheten.

## REQUIREMENTS

## 1. Coat thickness

## 2. Appearance

Salt residues or smearing colour particles must not occur on the details.

## 3. Sealing

The sealing shall be well done.

## 4. Inspection of measure

Measures with given tolerances should be inspected as much as needed to guarantee the measure correctness.

## METODBESKRIVNING

Se Bofors V8-7.

## METHOD DESCRIPTION

See Bofors V8-7.



AB BOFORS • STANDARD • S-691 80 • BOFORS • SWEDEN • EFTERTRYCK UTAN SKRIFTLIGT MEDGIVANDE FORBJUDS • COPYRIGHT

Datum/Date	Dok.nr./Doc. No.
1987-05-15	38 005 704
Utgåva/Issu	Sida/Page
3	1 (2)

MÅLNINGSMETOD  
LUFTTORKANDEPAINTING METHOD  
AIRDRYING

Uppfyller kraven i FMV:s norm Målning av artilleripjäser, Yb 3133, utgåva 1.

Metod för invändig och utvärdig målning av aluminium och dess legeringar, som inte kan ugnstorkas.

## FÖRBEHANDLING

Målningmetoden skall kombineras med någon av nedanstående förbehandlingar.

- 1 Kromatering enligt Y3-13
- 2 Anodisering enligt Y3-10
- 3 Avfettning enligt V8-47

Kromatering enligt Y3-13 väljs i första hand.

Anodisering enligt Y3-10 väljs endast då speciella krav ställs på ytbehandlingen.

Avfettning väljs endast då detaljerna inte får kromateras eller anodiseras.

Förbehandlingsmetoden skall alltid anges på ritningen.

Answers to the requirements in FMV:s standard Painting of guns, Yb 3133, edition 1.

Airdrying method for internal and external painting of aluminium and aluminium alloys, which cannot be stove.

## PRE-TREATMENT

The painting method shall be combined with some of the pre-treatments below.

- 1 Chromating acc. to Y3-13
- 2 Anodizing acc. to Y3-10
- 3 Degreasing acc. to V8-47

Chromating acc. to Y3-13 shall be chosen in the first place.

Anodizing acc. to Y3-10 shall be chosen only when special requirements on the surface treatment are called for.

Degreasing shall be chosen only when the parts must not be chromated or anodized.

The method of pre-treatment shall always be stated on the drawing.

## INGÅENDE FÄRGSKIKT

Washprimer, W5-5-101  
Grundfärg, W5-1-304  
Täckfärg

## COATS APPLIED

Washprimer, W5-5-101  
Primer, W5-1-304  
Finishing paint

## METODETECKNING, METODNUMMER, TÄCKFÄRG

## METHOD DESIGNATION, METHOD NUMBER, FINISHING PAINT

Metodbeteckning Method designation	Metodnummer Method number	Täckfärg Finishing paint
Y4-35-45-105	11 500 022	W6-45-105 Gul, blank Yellow, glossy
Y4-35-45-117	11 500 023	W6-45-117 Gulgrå, blank Yellow-grey, glossy
Y4-35-45-118	11 500 024	W6-45-118 Gul, blank Yellow, glossy
Y4-35-45-119	11 500 025	W6-45-119 Ljust gulgrön, blank Light yellow-green, glossy
Y4-35-45-305	11 500 026	W6-45-305 Röd, blank Red, glossy
Y4-35-9-600 *	11 500 027	W6-9-600 Olivgrön, halvmatt. IR-säker Olive green, semi-dull. IR-proof



Metodbeteckning Method designation	Metodnummer Method number	Täckfärg Finishing paint
Y4-35-45-611	11 500 028	W6-45-611 Blågrön, blank Blue-green, glossy
Y4-35-45-622	11 500 029	W6-45-622 Kulören har utgått The colour has been excluded
Y4-35-9-630	11 500 863	W6-9-630 Mörkgrön, halvmatt. IR-säker Dark green, semi-dull. IR-proof
Y4-35-45-710	11 500 030	W6-45-710 Ljusgrå, blank Light grey, glossy
Y4-35-45-900	11 500 031	W6-45-900 Vit, blank White, glossy
Y4-35-45-901	11 500 032	W6-45-901 Aluminium, blank Aluminium, glossy

\* Ej för nykonstruktion!  
För nya produkter bör Y4-35-9-630 användas.

\* Not for design!  
For new products Y4-35-9-630 should be used.

I tillverkningsunderlaget skall anges  
förbehandling och målning.

Pre-treatment and painting shall be stated in  
manufacturing documentation.

Exempel. Ytbehandling: Y3-13  
Y4-35-45-105

Example. Surface treatment: Y3-13  
Y4-35-45-105

#### UTFÖRANDE

Behandlingsdata för målningsfärgerna fram-  
går av respektive standard.

#### PROCEDURE

Paint application data may be found in the  
appropriate standard specification.

#### TEKNISKA FORDRINGAR

##### Allmänt

Målningsfärgen skall vara pålagd i jämntjocka  
skikt, utan rynkbildningar, rinningar, blåsor  
eller andra defekter och ha en jämn glans.

#### TECHNICAL REQUIREMENTS

##### General

The paint shall be applied in layers of even  
thickness without wrinkles, runs, blisters or  
other defects, and shall have an even gloss.

##### Skiktjocklekar

Washprimer, 4-10 µm  
Grundfärg, 20 µm min  
Täckfärg, 30 µm min

##### Coat thicknesses

Washprimer, 4-10 µm  
Primer, 20 µm min  
Finishing paint, 30 µm min

På utväntiga leveransmålade ytor skall fordran  
på skiktjockleken höjas ca 20 µm.

The requirement on external surfaces, painted  
for delivery, is to be increased by about 20  
µm.

#### ÖVRIGA FORDRINGAR

Vidhäftning enligt W4-10 ..... Mycket god

#### OTHER REQUIREMENTS

Adhesion acc. to W4-10 ..... Very good

IR-reflektion enligt W4-16

IR-reflection acc. to W4-16

Metod Y4-35-9-600 ..... 30-45 %

Method Y4-35-9-600 ..... 30-45 %

Metod Y4-35-9-630 ..... 30-35 %

Method Y4-35-9-630 ..... 30-35 %

De angivna målningsmetoderna skall dessutom  
uppfylla alla här icke uppräknade krav på  
kulör, glans etc som är upptagna i avsnittet  
"Tekniska data" på standarden för täckfärgen.

In addition, this method of surface treatment  
shall meet all requirements relating to  
colour, gloss, etc. not mentioned here, but  
which are specified in section "Technical  
data" in the standard for the finishing  
paint in question.