BAB V

KESIMPULAN DAN SARAN

Metode Zone Oriented Painting System ini merencanakan pengecatan dimana sebag ian proses pengecatan kapal baru dilakukan pada saat kapal tersebut masih dalam bentuk block-block.

Dalam pembangunan block-block itu, selang waktu pembangunan block yang satu dengan yang lainnya memiliki waktu yang cukup untuk diadakan pengecatan sebelum block-block tersebut disambung (erection) di building birth (galangan). Jadi apabila ada satu block yang telah jadi, maka block tersebut menunggu proses selanjutnya. Dalam kondisi inilah sebagian proses pengecatan dapat dilakukan sehingga mengefektifkan waktu secara keseluruhan dalam pembangunan kapal baru tersebut.

Selain itu dalam menentukan kebutuhan material cat akan lebih mudah dihitung berdasarkan tiap-tiap block. Dari hasil perhitungan kebutuhan material tiap block, kemudian diadakan penjumlahan untuk dihitung kebutuhan total dari material cat inilah didasarkan atas tiap-tiap jenis cat.

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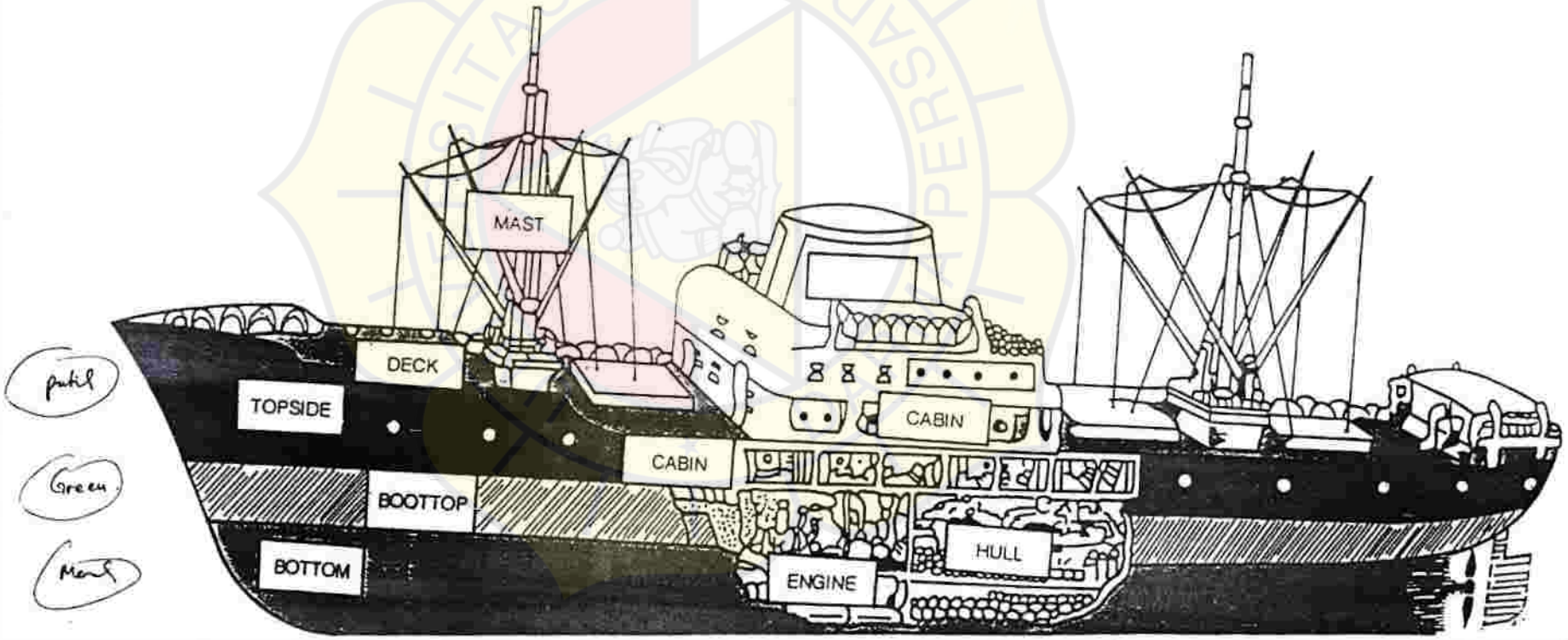
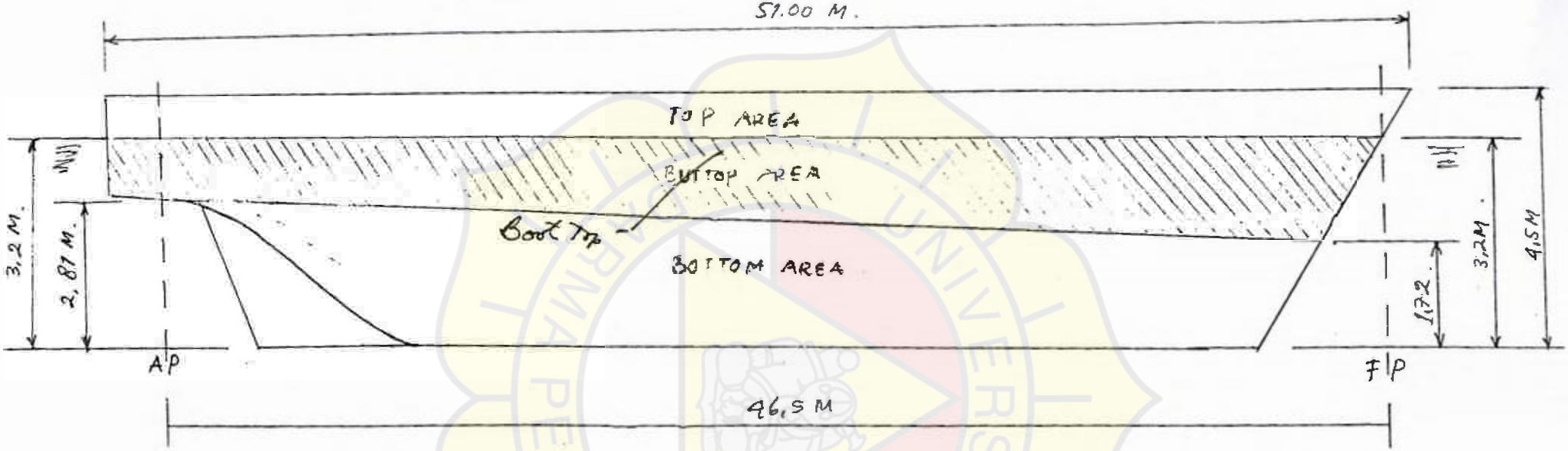
LAMPIRAN

PAINTING SPECIFICATION
NEW BUILDING & MAINTENANCE



PENUMPANG PERINTIS & BARANG

500 DWT.



JAKARTA, 25 MEI 2003

PERUM PERUM DAYA RADAR

STASIUN RADAR UTAMA

(SUGAIDI)

KAPRO

ESTIMATION OF SHIP SURFACE AREAS

Bottom (including boottop)

$A = \{(2 \times d) + B\} \times Lpp \times P$

Where: d = draught maximum
B = breadth extreme
Lpp = length between perpendiculars
P = 0.80 for big tankers
P = 0.85 for bulk carriers
P = 0.70 - 0.75 for dry cargo ships

Boottop

$A = 2 \times h \times (Lpp + 0.5 \times B)$

Where: h = width of the boottop *(to be obtained from the owners)*
Lpp = length between perpendiculars
B = breadth extreme

Topsides

$A = 2 \times h \times (Loa + 0.5 \times B)$

Where: h = height of topsides (depth - draught)
Loa = length over all
B = breadth extreme

Weatherdecks
(including upper decks on superstructure, foundation, hatches and top of deckhouses)

$A = Loa \times B \times N$

(Accuracy depends on choice of N which indicates the actual area in relation to its circumscribed rectangular)

Where: Loa = length over all
B = breadth extreme
N = 0.90 for big tankers and bulk carriers
N = 0.88 for cargo vessels
N = 0.84 for coasters etc.

Theoretical Spreading Rate
(in a completely smooth surface in m²/l)

$$\frac{VS\% \times 10}{\text{Desired dft}}$$

Theoretical Paint Consumption
(on a completely smooth surface in litres)

$$\frac{\text{Desired dft} \times A}{VS\% \times 10}$$

Theoretical Cost Per m²

$$\frac{\text{Desired dft} \times \text{price/l}}{VS\% \times 10}$$

VS% = Volume solids in the paint
dft = Dry film thickness in micrometers
A = Surface area in m²

A : {(2 × 3,2) + 9} *

PT. PACIFIC DWIYASA PUTRA
COATINGS MANUFACTURER AND DISTRIBUTOR
Jl. Industri I No. 1, Laks. R.E. Martadinata (Volker)
Tanjung Priok, Jakarta 14310.
Telp. (021) 437 3648-52 (Hunting) ext. 382-351-387
Fax. (021) 437 3360, Email : pdppaint@indosat.net.id

PT. DAYA RADAR UTAMA
Attn. : Bpk. Junaedy

No. 032/Fax-ZK/03
PROPOSAL A

RE : PAINT SPECIFICATION AND QUOTATION
KAPAL PUNUMPANG PERINTIS DAN BARANG 500 DWT

No.	Location	Admiral Product	Surface Preparation	FC/TU	No. Of COAT	Colour	DFT/Coat (mic)	Practical Spread. Rate	Area (M2)	Aprrox. Qty (Ltr)
1	Bottom	ADM 611 Epoxy Shop Primer	A	FC	1	Red Brown	20	8.10	522	70
		ADM 601 Coaltar Epoxy	D	FC	1	Black	100	4.70	522	110
		ADM 601 Coaltar Epoxy	D	FC	1	Brown	100	4.70	522	110
		ADM 201 Anti Fouling	D	FC	1	Red Oxide	75	4.70	522	110
		ADM 201 Anti Fouling	D	FC	1	Red Oxide	75	4.70	522	110
		Thinner 1633 for ADM 611	-	-	-	-	-	-	-	15
		Thinner 1601	-	-	-	-	-	-	-	70
						Total DFT	370			
2	Bootop	ADM 611 Epoxy Shop Primer	A	FC	1	Red Brown	20	8.10	512	10
		ADM 401 Chlorinated Rubber A/C	D	FC	1	Grey	75	3.90	512	15
		ADM 401 Chlorinated Rubber A/C	D	FC	1	Grey	75	3.90	512	15
		ADM 403 Chlorinated Rubber Finish	D	FC	1	Azure Blue	40	6.50	512	10
		ADM 403 Chlorinated Rubber Finish	D	FC	1	Azure Blue	40	6.50	512	10
		Thinner 1633 for ADM 611	-	-	-	-	-	-	-	5
		Thinner 1601	-	-	-	-	-	-	-	10
						Total DFT	250			
3	Topside, Transom, Forecastle	ADM 611 Epoxy Shop Primer	A	FC	1	Red Brown	20	8.10	194	35
		ADM 401 Chlorinated Rubber A/C	D	FC	1	Grey	75	3.90	194	50
		ADM 401 Chlorinated Rubber A/C	D	FC	1	Grey	75	3.90	194	50
		ADM 403 Chlorinated Rubber Finish	D	FC	1	White	40	6.50	194	30
		ADM 403 Chlorinated Rubber Finish	D	FC	1	White	40	6.50	194	30
		Thinner 1633 for ADM 611	-	-	-	-	-	-	-	5
		Thinner 1601	-	-	-	-	-	-	-	25
						Total DFT	250			

Surface Preparation : A : Sand Blasting Sa 2½
D : Cleaning
FC : Full Coat

Jakarta, 26 Februari 2003
Hormat kami,

Zul Karyanto
Sales Rep.

Mengetahui,

Gauls Windiarto
Sales & Marketing Manager

PT. PACIFIC DWIYASA PUTRA
COATINGS MANUFACTURER AND DISTRIBUTOR
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Fax. (021) 437 3360, Email : pdppaint@indosat.net

PT. DAYA RADAR UTAMA
Attn. : Bpk. Jumaedy

No. 032/Fax-ZIN/03
PROPOSAL B

RE : PAINT SPECIFICATION AND QUOTATION
KAPAL PUNUMPANG PERINTIS DAN BARANG 500 DWT

No.	Location	Admiral Product	Surface Preparation	FC/TU	No. Of COAT	Colour	DFT/Coat (mic)	Pratical Spread. Rate	Area (M2)	Aprrox. Qty (Ltr)
1	Bottom	ADM 611 Epoxy Shop Primer	A	FC	1	Red Brown	20	8.10	522	70
		ADM 601 Coaltar Epoxy	D	FC	1	Black	100	4.70	522	110
		ADM 601 Coaltar Epoxy	D	FC	1	~~Black~~ Brown	100	4.70	522	110
		ADM 201 Anti Fouling	D	FC	1	Red Oxide	75	4.70	522	110
		ADM 201 Anti Fouling	D	FC	1	Red Oxide	75	4.70	522	110
		Thinner 1633 for ADM 611	-	-	-	-	-	-	-	15
		Thinner 1601	-	-	-	-	-	-	-	70
						Total DFT	370			
2	Bootop	ADM 611 Epoxy Shop Primer	A	FC	1	Red Brown	20	8.10	51	10
		ADM 401 Chlorinated Rubber A/C	D	FC	1	Grey	75	3.90	51	15
		ADM 401 Chlorinated Rubber A/C	D	FC	1	Grey	75	3.90	51	15
	ADM 320	ADM 483 Chlorinated Rubber Finish (GREEN 320 DN406)	D	FC	1	~~Azure Blue~~	40	6.50	51	10
	ADM 320	ADM 483 Chlorinated Rubber Finish (GREEN DN406)	D	FC	1	~~Azure Blue~~	40	6.50	51	10
		Thinner 1633 for ADM 611	-	-	-	-	-	-	-	5
		Thinner 1601	-	-	-	-	-	-	-	10
						Total DFT	250			
3	Topside, Transom, Forecastle	ADM 611 Epoxy Shop Primer	A	FC	1	Red Brown	20	8.10	194	35
		ADM ~~391 Red Lead~~ 302 Red oxide	D	FC	1	Orange	50	6.50	194	30
		ADM ~~391 Red Lead~~ 302 Red oxide primer	D	FC	1	Orange	50	6.50	194	30
		ADM 307 Super Alkyd Finish (IVORY Y100)	D	FC	1	~~White~~	50	7.10	194	30
		ADM 307 Super Alkyd Finish (IVORY Y100)	D	FC	1	~~White~~	50	7.10	194	30
		Thinner 1633 for ADM 611	-	-	-	-	-	-	-	5
		Thinner 1645	-	-	-	-	-	-	-	20
						Total DFT	220			

I II
6 kg + 5 kg

I II
3 kg + 3 kg

oxide

Surface Preparation : A : Sand Blasting Sa 2½
D : Cleaning
FC : Full Coat

Jakarta, 26 Februari 2003
Hormat kami,

Zul Karyanto
Sales Rep.

Mengetahui,

Ganis Windiarto
Sales & Marketing Manager

CRAC	= Chlorinnted Rubber Anti-Corrosive
CRAF	= Chlorinnted Rubber Anti-Fouling
CRBT	= Chlorinnted Rubber Boot Top Paint
CRFP	= Chlorinnted Rubber Finish Paint
CRPP	= Chlorinnted Rubber Primer Paint
CRTS	= Chlorinnted Rubber Top Slow Paint
CRDP	= Chlorinnted Rubber Deck Paint
FC	= Finish Paint
PE	= Pure Epoxy Paint
ZP	= Zinc Epoxy Paint
WR	= White Rust Resisting Paint
EP	= Epoxy Paint
TE	= Tar Epoxy Paint
HD	= Held Paint
DP	= Deck Paint
RP	= Primer Paint
LZ	= Lead Zinc Chomate Primer
HR	= Heat Resisting Paint
IZP	= Inorganic Zinc Primer
UT 1	= Nold
SU 1	= Top Side Shell
US 1	= Upper Deck
CR	= Chlorinnted Rubber
AC	= Anti Corrosive
AF	= Anti Fouling
BT	= Boot Top Paint
TS	= Top Side Paint