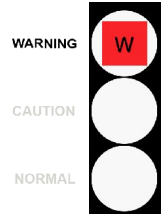


C Code : 29006
 U Name :
 T
 O
 M Address : No.11,J-5 Road,
 E Map Ta Phut Industrial Estate
 R Muang, Rayong 21150
 Site :
 Location :
 Test code : B894

Unit ID : 32 11 1SGB FAN 1 Secondary Air Fan Inboard
 Unit Type : BEARING MAIN
 Unit Make : ABB
 Unit Model : (not given)
 Oil type/
 I Viscosity : MOBIL DTE HEAVY MEDIUM ISO 68
 L
 Oil System Capacity : 12 Liters



Notes (Finding, Evaluation, Interpretation, Suggestion and Recommendation)

Note abnormal wear metals.
 Copper(Cu), and Lead(Pb), may be from wear of plane bearings, journal bearings or bushings.
 Dirt (silicon) is present and resulting in abrasive wear.
 Particle count indicates that oil cleanliness level is in unacceptable range.
 Recommend check for other abnormal operating parameters, i.e., vibration, noise, heat etc. If abnormal condition exists, please inform laboratory with next sample.
 Recommend change oil and flush system with clean oil to remove contamination, if the oil from this sample is still in use in this component.

Wasan C.

			Current Sample			Previous Sample			Baseline and Alarm Limit											
Condition History			Wear	Oil	Cont.	Wear	Oil	Cont.	Wear	Oil	Cont.	Alarm Limit								
			W	N	W	N	W	N	C	W	C	Alarm Limit Matrix -Set Name (Equipment type / oil type)								
												Bearing Main General MB DTE Heavy Medium 68 (Glow SPP3)								
												The New Oil (TNO)								
			RDE fine			RFS coarse			RDE fine			RFS coarse								
			U-Caution	U-Warning	U-Caution	U-Warning	U-Caution	U-Warning	U-Caution	U-Warning	U-Caution	U-Warning								
Lab ID	Test Method	Result	222560			211752			201175											
Bottle ID			1008366			1011554			1003015											
Date Sampled			11-Jul-13			26-Mar-13			27-Nov-12											
Oil Hours (Kms)			7459			4936			2090											
Unit Hours (Kms)			90931			88408			85562											
Oil Added (Liters)																				
Filters Hours (Kms)																				
Wear Condition			RDE fine			RFS coarse			RDE fine			RFS coarse								
Wear Element	Method	Unit	RDE fine	RFS coarse	RDE fine	RFS coarse	RDE fine	RFS coarse	RDE fine	RFS coarse	The New Oil (TNO)	U-Caution	U-Warning	U-Caution	U-Warning					
Iron	D-6595	PPM	11.3	22.0	0.4	0.8	0.3	0.9	0	0	0	>20	>35	>125	>230					
Chromium	D-6595	PPM	0.1	0.0	0.0	0.0	0.1	0.1	0	0	0	>1	>2	>2	>3					
Lead	D-6595	PPM	9.5 W	0.0	0.3	0.8	3.8 W	2.5	0	0	0	>2	>3	>6	>10					
Copper	D-6595	PPM	11.7 W	3.4	9.4 C	0.7	13.8 W	4.4	0	0	0	>5	>10	>20	>40					
Tin	D-6595	PPM	0.7	0.0	1.2	0.0	11.1 W	29.8 W	0	0	0	>2	>3	>3	>6					
Aluminum	D-6595	PPM	0.2	0.7	0.0	0.0	0.3	0.4	0	0	0	>1	>2	>2	>4					
Nickel	D-6595	PPM	0.1	0.0	0.0	0.0	0.0	1.5	0	0	0	>1	>2	>2	>3					
Silver	D-6595	PPM	0.0	0.1	0.0	0.0	0.0	0.0	0	0	0									
Molybdenum	D-6595	PPM	0.0	1.4	0.0	0.0	0.0	0.8	0	0	0									
Titanium	D-6595	PPM	0.0	2.4	0.1	0.4	0.0	0.0	0	0	0									
Oil Condition			RDE fine			RFS coarse			RDE fine			RFS coarse								
Viscosity @ 40°C	Method	Unit	RDE fine	RFS coarse	RDE fine	RFS coarse	RDE fine	RFS coarse	The New Oil (TNO)	U-Caution	U-Warning	U-Caution	U-Warning							
67.6	D-445	cSt			94.2 W			92.8 W	67.6	<61.2	<64.6	>71.4	>74.8							
Viscosity @ 100°C	D-445	cSt							3.8			>6	>8							
Oxidation	FTIR	Abs	2.1		3.5			2.5	2.9			>6	>8							
Nitration	FTIR	Abs	1.7		2.1			2.3	2.9			>6	>8							
TAN	D-974	mg KOH/g	0.47		0.21			0.19												
TBN	D-4739	mg KOH/g																		
Contamination			RDE fine			RFS coarse			RDE fine			RFS coarse								
Water	Method	Unit	RDE fine	RFS coarse	RDE fine	RFS coarse	RDE fine	RFS coarse	The New Oil (TNO)	U-Caution	U-Warning	U-Caution	U-Warning							
0.107 C	T-H2O CheckTM	%(Wt.)			0.018			0.028	0.026			>0.1	>0.15							
Sodium	D-6595	PPM	121		3			2	0											
Silicon	D-6595	PPM	55.7 W	138.6 W	3.6	1.8	17.8 W	0.8	0			>5	>10	>10	>15					
Additive Element			RDE fine			RFS coarse			RDE fine			RFS coarse								
Boron	Method	Unit	RDE fine	RFS coarse	RDE fine	RFS coarse	RDE fine	RFS coarse	The New Oil (TNO)	U-Caution	U-Warning	U-Caution	U-Warning							
0	D-6595	PPM			0			0	0											
Magnesium	D-6595	PPM	1		1			0	0											
Calcium	D-6595	PPM	59		0			2	0											
Barium	D-6595	PPM	0		0			0	0											
Phosphorus	D-6595	PPM	284		36			83	115											
Zinc	D-6595	PPM	415	174	113	9	107	9	85											
Additional Test			RDE fine			RFS coarse			RDE fine			RFS coarse								
Flash Point	Method	Unit	RDE fine	RFS coarse	RDE fine	RFS coarse	RDE fine	RFS coarse	The New Oil (TNO)	U-Caution	U-Warning	U-Caution	U-Warning							
	D-3828	°C																		
Viscosity Index	D-2270																			

Note: Alarm Limits are variable and dependent upon dataset size and to be used as general guideline.
 No Sign or **N** : NORMAL , **C** or **▲** : CAUTION (first level warning limit) , **W** or **■** : Warning (second level warning limit)
U-Caution : Upper CAUTION Level **L-Caution** : Lower CAUTION Level **U-Warning** : Upper WARNING Level **L-Warning** : Lower WARNING required Level
 First Level Alarm Alert Limit in Upper Level and/or Lower Level
 Second Level Alarm Alert Limit in Upper Level and/or Lower Level
 TNO = The new oil , RO = Reference oil , OS = Oil Specification
 Accuracy of interpretation and recommendation are based on representatives sample and information supplied.
 No warranty is expressed or implied for this report.

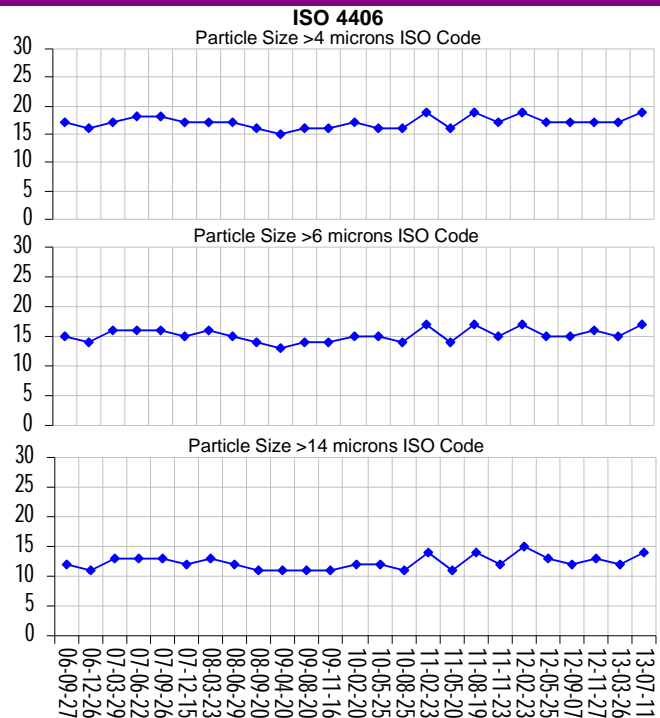
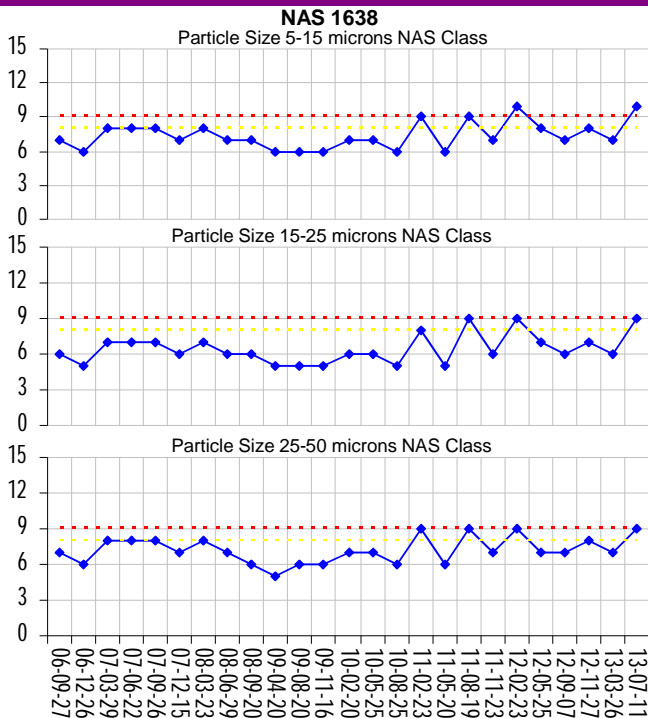
C Code : 29006
 U Name :
 S
 T
 O
 M Address : No.11,J-5 Road,
 E Map Ta Phut Industrial Estate
 R Muang, Rayong 21150
 Site :
 Location :
 Test code : B894

Unit ID : **32 11 1SGB FAN 1 Secondary Air Fan Inboard**
 Unit Type : BEARING MAIN
 Unit Make : ABB
 Unit Model : (not given)
 Oil type / Viscosity : MOBIL DTE HEAVY MEDIUM ISO 68
 Oil System Capacity : 12 Liters

Notes (Finding, Evaluation, Interpretation, Suggestion and Recommendation)

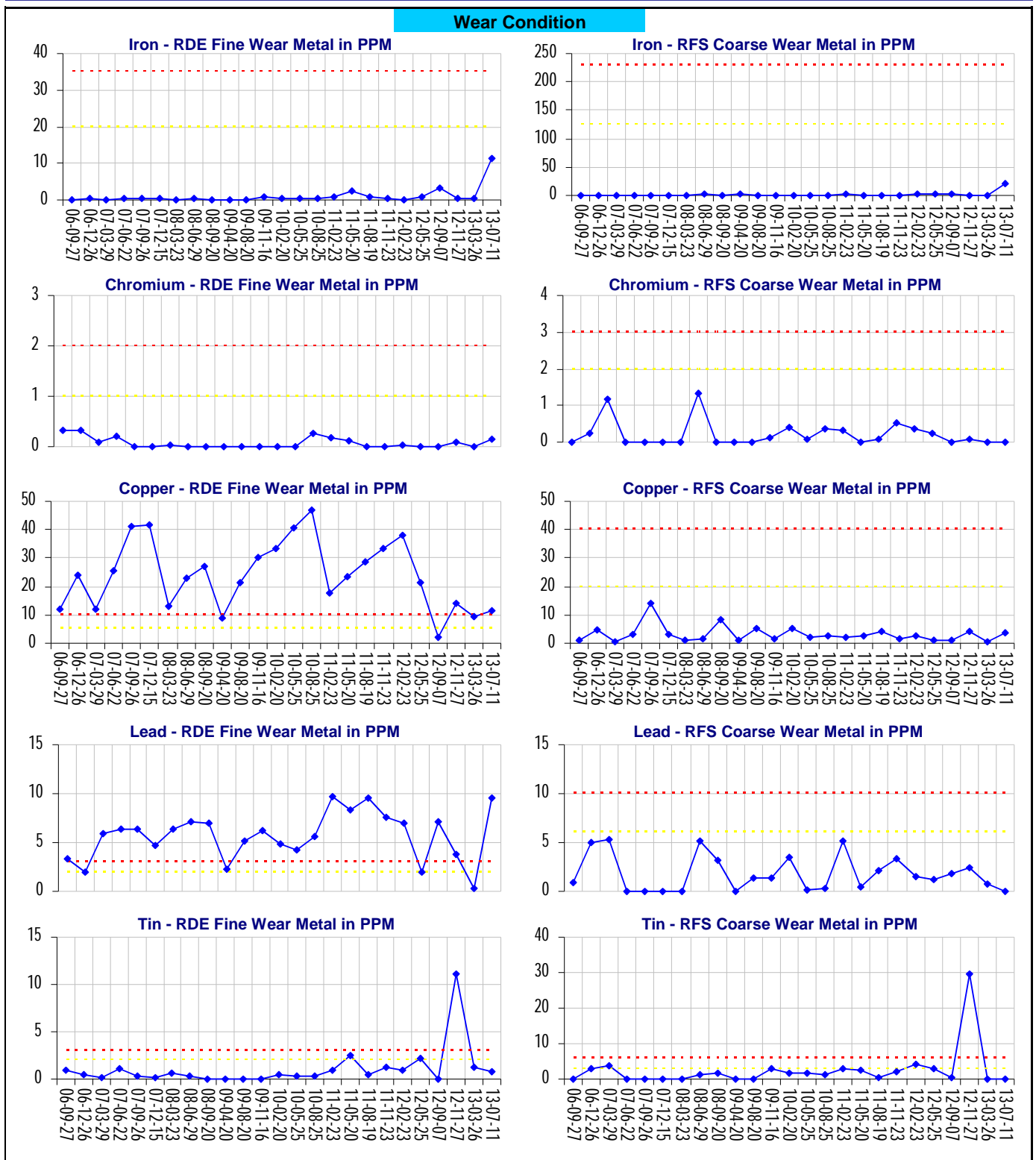
Particle count indicates that oil cleanliness level is in unacceptable range.

Lab ID	Current Sample		Previous Sample				Particle Count				
	Bottle ID	Date Sampled	222560	211752	201175	NAS 1638 ISO 4406					
Bottle ID	1008366		1011554	1003015							
Date Sampled	11-Jul-13		26-Mar-13	27-Nov-12							
Oil Hours (Kms)	7459		4936	2090							
Unit Hours (Kms)	90931		88408	85562							
Oil Added (Liters)											
Filters Hours (Kms)											
Contamination						Alarm Limit					
Particle Count NAS 1638 System Standard						Bearing Main General MB DTE Heavy Medium 68 (Glow SPP3)					
						U-Caution		U-Warning			
Particle Size Range	No. of Particles / 100ml.	Class	No. of Particles / 100ml.	Class	No. of Particles / 100ml.	Class	Class	No. of Particles / 100ml.	Class	No. of Particles / 100ml.	Class
Particle Size 5-15 microns	132,400	10 W	21,500	7	39,800	8 C	7	>32000	8	>64000	9
Particle Size 15-25 microns	12,000	9 W	1,900	6	3,600	7	7	>5700	8	>11400	9
Particle Size 25-50 microns	3,500	9 W	600	7	1,000	8		>1012	8	>2025	9
Particle Size 50-100 microns	300	8	<100	6	100	7					
Particle Size >100 microns	<100	7	<100	4	<100	5					
Particle Count ISO 4406:1999 System Standard											
Particle Size Range	No. of Particles / ml.	Class	No. of Particles / ml.	Class	No. of Particles / ml.	Class	Class	No. of Particles / ml.	Class	No. of Particles / ml.	Class
Particle Size > 4 microns	3,972	19	644	17	1,192	17					
Particle Size > 6 microns	1,112	17	180	15	334	16					
Particle Size > 14 microns	156	14	25	12	46	13					
ISO 4406 Class Rating	19 / 17 / 14		17 / 15 / 12		17 / 16 / 13						



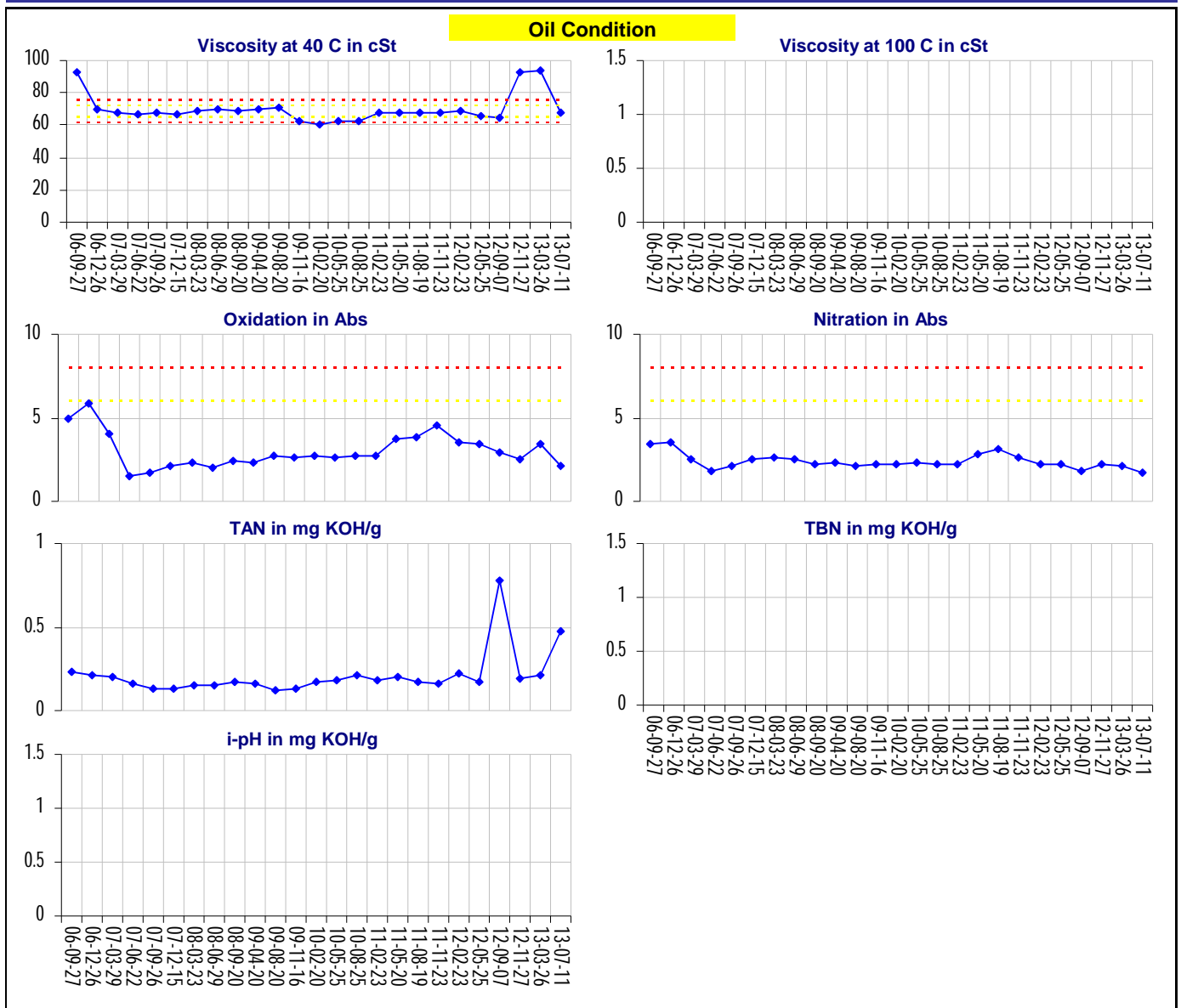
C Code : 29006
 U Name
 S Address : No.11,1-5 Road,
 T Map Ta Phut Industrial Estate
 O Muang, Rayong 21150
 M Site :
 E Location :
 R Test code : B894

E Unit ID : 32 11 1SGB FAN 1 Secondary Air Fan Inboard
 O Unit Type : BEARING MAIN
 I Unit Make : ABB
 L Unit Model : (not given)
 Oil type / Viscosity : MOBIL DTE HEAVY MEDIUM ISO 68
 Oil System Capacity : 12 Liters



C Code : 29006
 U Name :
 T Address : No.11,1-5 Road,
 O Map Ta Phut Industrial Estate
 M Muang, Rayong 21150
 E Site :
 R Location :
 Test code : B894

Unit ID : 32 11 1SGB FAN 1 Secondary Air Fan Inboard
 Unit Type : BEARING MAIN
 Unit Make : ABB
 Unit Model : (not given)
 Oil type / Viscosity : MOBIL DTE HEAVY MEDIUM ISO 68
 Oil System Capacity : 12 Liters



C Code : **29006**
 U Name :
 S Address : No.11,1-5 Road,
 T Map Ta Phut Industrial Estate
 O Muang, Rayong 21150
 M Site :
 E Location :
 R Test code : B894

E Unit ID : **32 11 1SGB FAN 1 Secondary Air Fan Inboard**
 O Unit Type : BEARING MAIN
 U Unit Make : ABB
 I Unit Model : (not given)
 L Oil type / Viscosity : MOBIL DTE HEAVY MEDIUM ISO 68
 Oil System Capacity : 12 Liters

