

## PREVENTIVE MAINTENANCE

## MOTOR AND PUMP

P.M. WEEK :

25

Machine Code :

NM-02

LOCATION :

A5



CHENNAI  
MIRAGE  
MAINTENANCE

DATE :

30/5/67

Service code: ☐ W ☐ M ☐ Q ☐ H ☐ Y

TYPE					DESCRIPTION	STATUS	
<b>PUMP</b>							
		Q	H	Y	Check pump bearing.	<input checked="" type="checkbox"/> Normal	<input type="checkbox"/> Changed
				Y	Check pulley alignment, linear and angular.	<input type="checkbox"/> Normal	<input type="checkbox"/> Abnormal
				Y	Check rust & paint if necessary.	<input type="checkbox"/> Clean and repaint	
	M	Q	H	Y	- Notice pump sound while operating	<input type="checkbox"/> Normal	<input type="checkbox"/> Abnormal
			H	Y	- Examine screw, nut if still fixed	<input type="checkbox"/> Normal	<input type="checkbox"/> Loose
		Q	H	Y	- Examine pulley, key shaft and lock screw of pulley	<input checked="" type="checkbox"/> Tight	<input type="checkbox"/> Loose
	M	Q	H	Y	Check mechanical seal for condition adjust if necessary.	<input checked="" type="checkbox"/> Normal	<input type="checkbox"/> Adjusted
	M	Q	H	Y	General cleaning of casing.	<input checked="" type="checkbox"/> Clean	<input type="checkbox"/> Dirty
			H	Y	Check coupling for condition, replace defective parts if necessary	<input type="checkbox"/> Normal	<input type="checkbox"/> Adjusted
				Y	Check coupling alignment.	<input type="checkbox"/> Normal	<input type="checkbox"/> Adjusted
			H	Y	Check strainer's basket, clean if necessary.	<input type="checkbox"/> Clean	<input type="checkbox"/> Dirty
			H	Y	Check for piping condition & leak, repair if necessary.	<input type="checkbox"/> Normal	<input type="checkbox"/> Changed
				Y	Check foundation & Vibration Isolators.	<input type="checkbox"/> Tight	<input type="checkbox"/> Loose
			H	Y	Lubricate all moving parts.	<input type="checkbox"/> Re-lubricate and clean	
			H	Y	Check for lost bolts & nuts.	<input type="checkbox"/> Tight	<input type="checkbox"/> Loose
<b>MOTOR</b>							
	M	Q	H	Y	Check cooling air intake and clean if necessary.	<input checked="" type="checkbox"/> Tight	<input type="checkbox"/> Loose
		Q	H	Y	Check motor bearing.	<input checked="" type="checkbox"/> Normal	<input type="checkbox"/> Abnormal
				Y	Clean motor's body and cooling fan.	<input checked="" type="checkbox"/> Clean	<input type="checkbox"/> Dirty
				Y	Check pulley alignment, linear and angular.	<input type="checkbox"/> Normal	<input type="checkbox"/> Abnormal
				Y	Check rust & paint if necessary.	<input type="checkbox"/> Clean and repaint	
			H	Y	- Examine Electrical terminal	<input type="checkbox"/> Tight	<input type="checkbox"/> Loose
			H	Y	- Examine insulation between coil and motor by using M.ohm.meter	1.....Amp.	2.....Amp.
	M	Q	H	Y	- Notice motor sound while operating	3.....Amp.	
	M		H	Y	- Measure current phase A.B.C	<input checked="" type="checkbox"/> Normal	<input type="checkbox"/> Abnormal
						1.....18.1.....Amp.	2.....18.2.....Amp.
						3.....17.0.....Amp.	
			H	Y	- Measure motor speed	.....rpm.	
			H	Y	- Examine screw, nut if still fixed	<input type="checkbox"/> Normal	<input type="checkbox"/> Loose
		Q	H	Y	- Examine pulley, key shaft and lock screw of pulley	<input type="checkbox"/> Tight	<input type="checkbox"/> Loose
	M	Q	H	Y	General cleaning of casing.	<input type="checkbox"/> Clean	<input type="checkbox"/> Dirty
			H	Y	Check for lost bolts & nuts.	<input type="checkbox"/> Tight	<input type="checkbox"/> Loose
<b>CONTROL PANEL</b>							
	M	Q	H	Y	Check warning and operating light for proper operation, replace if	<input checked="" type="checkbox"/> Loose	<input type="checkbox"/> Tight every point
		Q	H	Y	Check control panel general function condition.	<input checked="" type="checkbox"/> Operating well	<input type="checkbox"/> Not cut off
				Y	Check insulation & ground for electric components.	<input type="checkbox"/> Normal	<input type="checkbox"/> Abnormal
				Y	Tightening of all electrical conditions (Switch off the power first).	<input type="checkbox"/> Loose	<input type="checkbox"/> Tight every point
				Y	Check overload device, adjust if necessary.	<input type="checkbox"/> Normal	<input type="checkbox"/> Abnormal
				Y	Clean outside the cabinet and remove the dust from inside.	<input type="checkbox"/> Clean and repaint	

Comment :

Check By :

Date :

Asst. Of DE / Director Of Engineering By :

Date :

## PREVENTIVE MAINTENANCE

## MOTOR AND PUMP

P.M. WEEK :

Machine Code :

LOCATION :



DATE :

Service code: ☐ W ☐ M ☐ Q ☐ H ☐ Y

TYPE					DESCRIPTION	STATUS	
<b>PUMP</b>							
		Q	H	Y	Check pump bearing.	<input checked="" type="checkbox"/> Normal	<input type="checkbox"/> Changed
				Y	Check pulley alignment , linear and angular.	<input checked="" type="checkbox"/> Normal	<input type="checkbox"/> Abnormal
				Y	Check rust & paint if necessary.	<input type="checkbox"/> Clean and repaint	
	M	Q	H	Y	- Notice pump sound while operating	<input type="checkbox"/> Normal	<input type="checkbox"/> Abnormal
			H	Y	- Examine screw, nut if still fixed	<input type="checkbox"/> Normal	<input type="checkbox"/> Loose
		Q	H	Y	- Examine pulley, key shaft and lock screw of pulley	<input checked="" type="checkbox"/> Tight	<input type="checkbox"/> Loose
	M	Q	H	Y	Check mechanical seal for condition adjust if necessary.	<input checked="" type="checkbox"/> Normal	<input type="checkbox"/> Adjusted
	M	Q	H	Y	General cleaning of casing.	<input checked="" type="checkbox"/> Clean	<input type="checkbox"/> Dirty
			H	Y	Check coupling for condition, replace defective parts if necessary	<input type="checkbox"/> Normal	<input type="checkbox"/> Adjusted
				Y	Check coupling alignment .	<input type="checkbox"/> Normal	<input type="checkbox"/> Adjusted
			H	Y	Check strainer's basket , clean if necessary.	<input type="checkbox"/> Clean	<input type="checkbox"/> Dirty
			H	Y	Check for piping condition & leak , repair if necessary.	<input type="checkbox"/> Normal	<input type="checkbox"/> Changed
				Y	Check foundation & Vibration Isolators.	<input type="checkbox"/> Tight	<input type="checkbox"/> Loose
			H	Y	Lubricate all moving parts.	<input type="checkbox"/> Re-lubricate and clean	
			H	Y	Check for lost bolts & nuts .	<input type="checkbox"/> Tight	<input type="checkbox"/> Loose
<b>MOTOR</b>							
	M	Q	H	Y	Check cooling air intake and clean if necessary.	<input checked="" type="checkbox"/> Tight	<input type="checkbox"/> Loose
		Q	H	Y	Check motor bearing .	<input checked="" type="checkbox"/> Normal	<input type="checkbox"/> Abnormal
				Y	Clean motor's body and cooling fan.	<input checked="" type="checkbox"/> Clean	<input type="checkbox"/> Dirty
				Y	Check pulley alignment , linear and angular.	<input type="checkbox"/> Normal	<input type="checkbox"/> Abnormal
				Y	Check rust & paint if necessary.	<input type="checkbox"/> Clean and repaint	
			H	Y	- Examine Electrical terminal	<input type="checkbox"/> Tight	<input type="checkbox"/> Loose
			H	Y	- Examine insulation between coil and motor by using M.ohm.meter	1.....Amp.	2.....Amp.
						3.....Amp.	
	M	Q	H	Y	- Notice motor sound while operating	<input checked="" type="checkbox"/> Normal	<input type="checkbox"/> Abnormal
	M		H	Y	- Measure current phase A.B.C	1.....18.1 Amp.	2.....15.1 Amp.
						3.....18.3 Amp.	
			H	Y	- Measure motor speed	.....rpm.	
			H	Y	- Examine screw, nut if still fixed	<input type="checkbox"/> Normal	<input type="checkbox"/> Loose
		Q	H	Y	- Examine pulley, key shaft and lock screw of pulley	<input type="checkbox"/> Tight	<input type="checkbox"/> Loose
	M	Q	H	Y	General cleaning of casing.	<input type="checkbox"/> Clean	<input type="checkbox"/> Dirty
			H	Y	Check for lost bolts & nuts .	<input type="checkbox"/> Tight	<input type="checkbox"/> Loose
<b>CONTROL PANEL</b>							
	M	Q	H	Y	Check warning and operating light for proper operation , replace if	<input checked="" type="checkbox"/> Loose	<input type="checkbox"/> Tight every point
		Q	H	Y	Check control panel general function condition .	<input checked="" type="checkbox"/> Operating well	<input type="checkbox"/> Not cut off
				Y	Check insulation & ground for electric components.	<input type="checkbox"/> Normal	<input type="checkbox"/> Abnormal
				Y	Tightening of all electrical conditions ( Switch off the power first ) .	<input type="checkbox"/> Loose	<input type="checkbox"/> Tight every point
				Y	Check overload device . adjust if necessary.	<input type="checkbox"/> Normal	<input type="checkbox"/> Abnormal
				Y	Clean outside the cabinet and remove the dust from inside.	<input type="checkbox"/> Clean and repaint	

Comment :

Action By :

Date :

Check By :

Date :

Asst. Of DE / Director Of Engineering By :

Date :



## PREVENTIVE MAINTENANCE

## MOTOR AND PUMP

P.M. WEEK :

25

Machine Code :

SKP-01

LOCATION :

A5



DATE :

30/5/67

Service code: ☐ W ☐ M ☐ Q ☐ H ☐ Y

TYPE					DESCRIPTION	STATUS	
<b>PUMP</b>							
		Q	H	Y	Check pump bearing.	<input checked="" type="checkbox"/> Normal	<input type="checkbox"/> Changed
				Y	Check pulley alignment , linear and angular.	<input type="checkbox"/> Normal	<input type="checkbox"/> Abnormal
				Y	Check rust & paint if necessary.	<input type="checkbox"/> Clean and repaint	
	M	Q	H	Y	- Notice pump sound while operating	<input type="checkbox"/> Normal	<input type="checkbox"/> Abnormal
			H	Y	- Examine screw, nut if still fixed	<input type="checkbox"/> Normal	<input type="checkbox"/> Loose
		Q	H	Y	- Examine pulley, key shaft and lock screw of pulley	<input checked="" type="checkbox"/> Tight	<input type="checkbox"/> Loose
	M	Q	H	Y	Check mechanical seal for condition adjust if necessary.	<input checked="" type="checkbox"/> Normal	<input type="checkbox"/> Adjusted
	M	Q	H	Y	General cleaning of casing.	<input checked="" type="checkbox"/> Clean	<input type="checkbox"/> Dirty
			H	Y	Check coupling for condition, replace defective parts if necessary	<input type="checkbox"/> Normal	<input type="checkbox"/> Adjusted
				Y	Check coupling alignment .	<input type="checkbox"/> Normal	<input type="checkbox"/> Adjusted
			H	Y	Check strainer's basket , clean if necessary.	<input type="checkbox"/> Clean	<input type="checkbox"/> Dirty
			H	Y	Check for piping condition & leak , repair if necessary.	<input type="checkbox"/> Normal	<input type="checkbox"/> Changed
				Y	Check foundation & Vibration Isolators.	<input type="checkbox"/> Tight	<input type="checkbox"/> Loose
			H	Y	Lubricate all moving parts.	<input type="checkbox"/> Re-lubricate and clean	
			H	Y	Check for lost bolts & nuts .	<input type="checkbox"/> Tight	<input type="checkbox"/> Loose
<b>MOTOR</b>							
	M	Q	H	Y	Check cooling air intake and clean if necessary.	<input checked="" type="checkbox"/> Tight	<input type="checkbox"/> Loose
		Q	H	Y	Check motor bearing .	<input checked="" type="checkbox"/> Normal	<input type="checkbox"/> Abnormal
				Y	Clean motor's body and cooling fan.	<input checked="" type="checkbox"/> Clean	<input type="checkbox"/> Dirty
				Y	Check pulley alignment , linear and angular.	<input checked="" type="checkbox"/> Normal	<input type="checkbox"/> Abnormal
				Y	Check rust & paint if necessary.	<input type="checkbox"/> Clean and repaint	
			H	Y	- Examine Electrical terminal	<input type="checkbox"/> Tight	<input type="checkbox"/> Loose
			H	Y	- Examine insulation between coil and motor by using M.ohm.meter	1.....18.1.....Amp.	2.....18.1.....Amp.
						3.....18.2.....Amp.	
	M	Q	H	Y	- Notice motor sound while operating	<input type="checkbox"/> Normal	<input type="checkbox"/> Abnormal
	M		H	Y	- Measure current phase A.B.C	1.....Amp.	2.....Amp.
						3.....Amp.	
			H	Y	- Measure motor speed	.....rpm.	
			H	Y	- Examine screw, nut if still fixed	<input checked="" type="checkbox"/> Normal	<input type="checkbox"/> Loose
		Q	H	Y	- Examine pulley, key shaft and lock screw of pulley	<input checked="" type="checkbox"/> Tight	<input type="checkbox"/> Loose
	M	Q	H	Y	General cleaning of casing.	<input type="checkbox"/> Clean	<input type="checkbox"/> Dirty
			H	Y	Check for lost bolts & nuts .	<input type="checkbox"/> Tight	<input type="checkbox"/> Loose
<b>CONTROL PANEL</b>							
	M	Q	H	Y	Check warning and operating light for proper operation , replace if	<input checked="" type="checkbox"/> Loose	Tight every point
		Q	H	Y	Check control panel general function condition .	<input checked="" type="checkbox"/> Operating well	Not cut off
				Y	Check insulation & ground for electric components.	<input type="checkbox"/> Normal	<input type="checkbox"/> Abnormal
				Y	Tightening of all electrical conditions ( Switch off the power first ) .	<input type="checkbox"/> Loose	<input type="checkbox"/> Tight every point
				Y	Check overload device . adjust if necessary.	<input type="checkbox"/> Normal	<input type="checkbox"/> Abnormal
				Y	Clean outside the cabinet and remove the dust from inside.	<input type="checkbox"/> Clean and repaint	

Comment :

Action By :

Date :

Check By :

Date :

Asst. Of DE / Director Of Engineering By :

Date :

## PREVENTIVE MAINTENANCE

## MOTOR AND PUMP

P.M. WEEK : 25

Machine Code : SKP-02

LOCATION : A5


 CENTRAL BOARD  
 OF SECONDARY  
 EDUCATION  
 INDIA

DATE : 30/5/67

Service code: ☐ W ☐ M ☐ Q ☐ H ☐ Y

TYPE					DESCRIPTION	STATUS	
<b>PUMP</b>							
		Q	H	Y	Check pump bearing.	<input checked="" type="checkbox"/> Normal	<input type="checkbox"/> Changed
				Y	Check pulley alignment , linear and angular.	<input type="checkbox"/> Normal	<input type="checkbox"/> Abnormal
				Y	Check rust & paint if necessary.	<input type="checkbox"/> Clean and repaint	
	M	Q	H	Y	- Notice pump sound while operating	<input type="checkbox"/> Normal	<input type="checkbox"/> Abnormal
			H	Y	- Examine screw, nut if still fixed	<input type="checkbox"/> Normal	<input type="checkbox"/> Loose
		Q	H	Y	- Examine pulley, key shaft and lock screw of pulley	<input checked="" type="checkbox"/> Tight	<input type="checkbox"/> Loose
	M	Q	H	Y	Check mechanical seal for condition adjust if necessary.	<input checked="" type="checkbox"/> Normal	<input type="checkbox"/> Adjusted
	M	Q	H	Y	General cleaning of casing.	<input checked="" type="checkbox"/> Clean	<input type="checkbox"/> Dirty
			H	Y	Check coupling for condition, replace defective parts if necessary	<input type="checkbox"/> Normal	<input type="checkbox"/> Adjusted
				Y	Check coupling alignment .	<input type="checkbox"/> Normal	<input type="checkbox"/> Adjusted
			H	Y	Check strainer's basket , clean if necessary.	<input type="checkbox"/> Clean	<input type="checkbox"/> Dirty
			H	Y	Check for piping condition & leak , repair if necessary.	<input type="checkbox"/> Normal	<input type="checkbox"/> Changed
				Y	Check foundation & Vibration Isolators.	<input type="checkbox"/> Tight	<input type="checkbox"/> Loose
			H	Y	Lubricate all moving parts.	<input type="checkbox"/> Re-lubricate and clean	
			H	Y	Check for lost bolts & nuts .	<input type="checkbox"/> Tight	<input type="checkbox"/> Loose
<b>MOTOR</b>							
	M	Q	H	Y	Check cooling air intake and clean if necessary.	<input checked="" type="checkbox"/> Tight	<input type="checkbox"/> Loose
		Q	H	Y	Check motor bearing .	<input checked="" type="checkbox"/> Normal	<input type="checkbox"/> Abnormal
				Y	Clean motor's body and cooling fan.	<input type="checkbox"/> Clean	<input type="checkbox"/> Dirty
				Y	Check pulley alignment , linear and angular.	<input type="checkbox"/> Normal	<input type="checkbox"/> Abnormal
				Y	Check rust & paint if necessary.	<input type="checkbox"/> Clean and repaint	
			H	Y	- Examine Electrical terminal	<input type="checkbox"/> Tight	<input type="checkbox"/> Loose
			H	Y	- Examine insulation between coil and motor by using M.ohm.meter	1.....18.7 Amp.	2.....18.2 Amp.
						3.....18.7 Amp.	
	M	Q	H	Y	- Notice motor sound while operating	<input type="checkbox"/> Normal	<input type="checkbox"/> Abnormal
	M		H	Y	- Measure current phase A.B.C	1..... Amp.	2..... Amp.
						3..... Amp.	
			H	Y	- Measure motor speed	..... rpm.	
			H	Y	- Examine screw, nut if still fixed	<input type="checkbox"/> Normal	<input type="checkbox"/> Loose
		Q	H	Y	- Examine pulley, key shaft and lock screw of pulley	<input type="checkbox"/> Tight	<input type="checkbox"/> Loose
	M	Q	H	Y	General cleaning of casing.	<input type="checkbox"/> Clean	<input type="checkbox"/> Dirty
			H	Y	Check for lost bolts & nuts .	<input type="checkbox"/> Tight	<input type="checkbox"/> Loose
<b>CONTROL PANEL</b>							
	M	Q	H	Y	Check warning and operating light for proper operation , replace if	<input checked="" type="checkbox"/> Loose	<input type="checkbox"/> Tight every point
		Q	H	Y	Check control panel general function condition .	<input checked="" type="checkbox"/> Operating well	<input type="checkbox"/> Not cut off
				Y	Check insulation & ground for electric components.	<input type="checkbox"/> Normal	<input type="checkbox"/> Abnormal
				Y	Tightening of all electrical conditions ( Switch off the power first ) .	<input type="checkbox"/> Loose	<input type="checkbox"/> Tight every point
				Y	Check overload device . adjust if necessary.	<input type="checkbox"/> Normal	<input type="checkbox"/> Abnormal
				Y	Clean outside the cabinet and remove the dust from inside.	<input type="checkbox"/> Clean and repaint	

Comment :

Action By :

Date :

Check By :

Date :

Asst. Of DE / Director Of Engineering By :

Date :



## PREVENTIVE MAINTENANCE

## MOTOR AND PUMP

P.M. WEEK :

25

Machine Code :

DW-01

LOCATION :

A5



DATE :

30/5/17

Service code: ☐ W ☐ M ☐ Q ☐ H ☐ Y

TYPE					DESCRIPTION	STATUS	
<b>PUMP</b>							
		Q	H	Y	Check pump bearing.	<input checked="" type="checkbox"/> Normal	<input type="checkbox"/> Changed
				Y	Check pulley alignment, linear and angular.	<input type="checkbox"/> Normal	<input type="checkbox"/> Abnormal
				Y	Check rust & paint if necessary.	<input type="checkbox"/> Clean and repaint	
	M	Q	H	Y	- Notice pump sound while operating	<input type="checkbox"/> Normal	<input type="checkbox"/> Abnormal
			H	Y	- Examine screw, nut if still fixed	<input type="checkbox"/> Normal	<input type="checkbox"/> Loose
		Q	H	Y	- Examine pulley, key shaft and lock screw of pulley	<input checked="" type="checkbox"/> Tight	<input type="checkbox"/> Loose
	M	Q	H	Y	Check mechanical seal for condition adjust if necessary.	<input checked="" type="checkbox"/> Normal	<input type="checkbox"/> Adjusted
	M	Q	H	Y	General cleaning of casing.	<input checked="" type="checkbox"/> Clean	<input type="checkbox"/> Dirty
			H	Y	Check coupling for condition, replace defective parts if necessary	<input type="checkbox"/> Normal	<input type="checkbox"/> Adjusted
				Y	Check coupling alignment.	<input type="checkbox"/> Normal	<input type="checkbox"/> Adjusted
			H	Y	Check strainer's basket, clean if necessary.	<input type="checkbox"/> Clean	<input type="checkbox"/> Dirty
			H	Y	Check for piping condition & leak, repair if necessary.	<input type="checkbox"/> Normal	<input type="checkbox"/> Changed
				Y	Check foundation & Vibration Isolators.	<input type="checkbox"/> Tight	<input type="checkbox"/> Loose
			H	Y	Lubricate all moving parts.	<input type="checkbox"/> Re-lubricate and clean	
			H	Y	Check for lost bolts & nuts.	<input type="checkbox"/> Tight	<input type="checkbox"/> Loose
<b>MOTOR</b>							
	M	Q	H	Y	Check cooling air intake and clean if necessary.	<input checked="" type="checkbox"/> Tight	<input type="checkbox"/> Loose
		Q	H	Y	Check motor bearing.	<input checked="" type="checkbox"/> Normal	<input type="checkbox"/> Abnormal
				Y	Clean motor's body and cooling fan.	<input type="checkbox"/> Clean	<input type="checkbox"/> Dirty
				Y	Check pulley alignment, linear and angular.	<input type="checkbox"/> Normal	<input type="checkbox"/> Abnormal
				Y	Check rust & paint if necessary.	<input type="checkbox"/> Clean and repaint	
			H	Y	- Examine Electrical terminal	<input type="checkbox"/> Tight	<input type="checkbox"/> Loose
			H	Y	- Examine insulation between coil and motor by using M.ohm.meter	1.....18.1.....Amp.	2.....18.2.....Amp.
						3.....18.1.....Amp.	
	M	Q	H	Y	- Notice motor sound while operating	<input type="checkbox"/> Normal	<input type="checkbox"/> Abnormal
	M		H	Y	- Measure current phase A.B.C	1.....Amp.	2.....Amp.
						3.....Amp.	
			H	Y	- Measure motor speed	.....rpm.	
			H	Y	- Examine screw, nut if still fixed	<input checked="" type="checkbox"/> Normal	<input type="checkbox"/> Loose
		Q	H	Y	- Examine pulley, key shaft and lock screw of pulley	<input checked="" type="checkbox"/> Tight	<input type="checkbox"/> Loose
	M	Q	H	Y	General cleaning of casing.	<input type="checkbox"/> Clean	<input type="checkbox"/> Dirty
			H	Y	Check for lost bolts & nuts.	<input type="checkbox"/> Tight	<input type="checkbox"/> Loose
<b>CONTROL PANEL</b>							
	M	Q	H	Y	Check warning and operating light for proper operation, replace if	<input checked="" type="checkbox"/> Loose	<input type="checkbox"/> Tight every point
		Q	H	Y	Check control panel general function condition.	<input checked="" type="checkbox"/> Operating well	<input type="checkbox"/> Not cut off
				Y	Check insulation & ground for electric components.	<input type="checkbox"/> Normal	<input type="checkbox"/> Abnormal
				Y	Tightening of all electrical conditions (Switch off the power first).	<input type="checkbox"/> Loose	<input type="checkbox"/> Tight every point
				Y	Check overload device, adjust if necessary.	<input type="checkbox"/> Normal	<input type="checkbox"/> Abnormal
				Y	Clean outside the cabinet and remove the dust from inside.	<input type="checkbox"/> Clean and repaint	

Comment :

Action By :

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