

PARTS & SERVICE NEWS

REF NO.	AA02054B
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This Parts & Service News supercedes the previous issuance, AA02054A, dated March 15, 2002. AA02054A should be discarded.

- SUBJECT:** NEW 930E BRAKE TEMPERATURE MONITORING SYSTEM
- PURPOSE:** To inform the field of two newly developed kits that provide a warning to the operator if brake cooling oil temperatures are excessive.
- APPLICATION:** Komatsu Electric Drive Dump Trucks:
930E: 32604 - 32816, A30019, A30026 - A30120;
930E-2: A30012, A30098, A30100, A30121 - A30293, and A30295 - A30303;
- FAILURE CODE:** 2C48NS
- DESCRIPTION:** Brake Temperature Monitoring System Kits:
Kit (XK0079) is to be installed on 930E Dump Trucks: A30156 and Up;
Kit (XK0077) is to be installed on 930E Dump Trucks: A30019 - A30155.

In the field, isolated cases of brake component failures have occurred from continual unnecessary application or from using the service brakes to supplement the retarding system. These actions have resulted in the overheating of brake assemblies. Further damage occurs when the separator plates warp, and cause the brake disk(s) to continuously drag.

After the brake assembly components have become damaged, there is little indication of the failure. In most cases, the hydraulic filters begin to plug regularly due to the release of contaminants from the burned friction disks.

Two kits are now available to enhance existing 930E's with brake temperature monitoring systems. Both kits will require the installation of the latest version of General Electric (GE) software and configuration files. A new version of the GE (FL160) analog card is included in each kit in order to monitor the four temperature sensors. Complete assembly instructions are included in each kit. Refer to Table 1 and Table 2 for a listing of parts contained in kit (XK0077) and kit (XK0079), respectively.

It is important to note that kit (XK0079) is to be installed on 930E Dump Trucks with serial numbers A30156 and up. Furthermore, kit (XK0077) is to be installed on 930E Dump Trucks with serial numbers A30019 - A30155.

Both kits include temperature sensors which are used to monitor the temperature of the brake cooling oil. When oil temperature rises above 120° C (250° F), engine RPM rises to 1700 RPM. The hot oil warning light is then energized, and the GE system logs the event. Downloadable data will include the temperature of cooling oil from all four brakes at the time of warning. This information can be used to identify which brake assembly has triggered the warning. Refer to the flowchart in Figure 1, for further details regarding the logic of the brake temperature monitoring system.

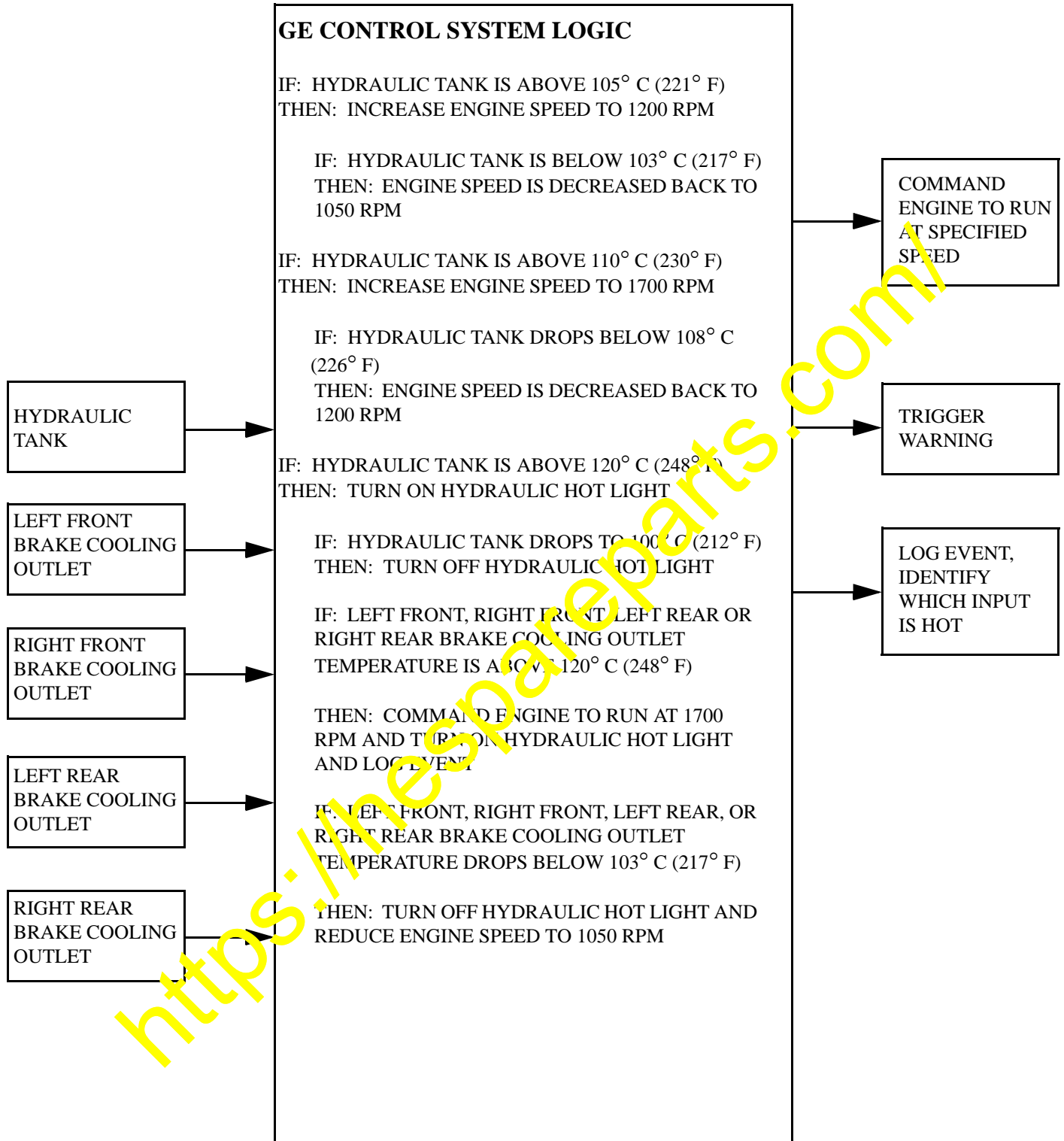


FIGURE 1. NEW 930E BRAKE TEMPERATURE MONITORING SYSTEM

**TABLE 1: BRAKE TEMPERATURE MONITORING SYSTEM KIT (XK0077)
930E DUMP TRUCKS: A30019 - A30155**

Part Number	Quantity	Description
EJ7417	1	Drawing, Hydraulic Installation
EJ9629	1	Drawing, Hydraulic Brake Temperature Sensor Installation
EJ7418	1	Tube Structure, Left Front
EJ7419	1	Tube Structure, Right Front
EJ7420	2	Tube Structure, Right and Left Rear
7861923320	4	Sensor, Temperature
WA4710	4	Clamp, Hydra-Zorb 1.500
HA7853	2	Hose, Right and Left Rear
HA7854	1	Hose, Left Rear
HA7855	1	Hose, Right Rear
TF6925	10	Clamp, Vinyl, .750 ID
MM0604	20	Cap Screw, M10 x 1.50 x 20, Zinc
MM0461	20	Flat Washer, M10
MM0471	20	Lock Washer, M10
424243	30	Clamp, Vinyl, .375 ID
MM0178	20	Nut, Hex Style, 1 M10 1.50
VC7673	10	Clamp, Vinyl, 2.188 ID
EJ9630	1	Harness Structure, Brake Temperature Sensor
EH2338	1	Harness Structure, Brake Temperature Sensor
PB5732	1	Terminal Board
WA3367	12	Nut Assembly
WB2910	1	Circuit ID Strip
VM2934	2	Self Tapping Screw, #6 UNC x .31, Round Head, PLT
EF3015	1	Name Plate, TB33
MM0373	2	Nut, M5 M/S
MM0459	2	Flat Washer, M6
MM0379	2	Lock Washer, 5MM External Tooth
VH5017	50	Tie Strap
MM0488	2	Stud Projection 5M x 20
VA9506	1	Rod, Formed
PC1219	1	Card, General Electric (GE) Analog FB160C1

**TABLE 2: BRAKE TEMPERATURE MONITORING SYSTEM KIT (XK0079)
930E DUMP TRUCKS: A30156 & Up**

Part Number	Quantity	Description
EJ7407	1	Drawing, Hydraulic Brake Sensor Installation
EJ9274	1	Drawing, Hydraulic Brake Temperature Sensor Installation
C1619	16	Cap Screw, .500 - 13 x 2.75 G5
C1540	16	Lock Washer, .500
EJ7406	4	Adaptor Flange
7861923320	4	Sensor, Temperature
VG9095	8	O-Ring, Size #225 90 Durometer
4260611570	2	Bracket
MM0604	12	Cap Screw, M10 x 1.50 x 20 Zinc
MM0461	22	Flat Washer, M10
MM0471	12	Lock Washer, M10
424243	20	Clamp, Vinyl, .375 ID
MM0178	10	Nut, Hex Style, 1" M10 x 1.50
VC7673	10	Clamp, Vinyl, 2" 188 ID
EJ9275	1	Harness Structure, Brake Temperature Sensor
EH2338	1	Harness Structure, Brake Temperature Sensor
PB5732	1	Terminal Board
WA3367	12	Nut Assembly
WB2910	1	Circuit ID Strip
VM2951	2	Self Tapping Screw, #6 UNC x .31, Round Head PLT
EF3015	1	Name Plate, TB33
MM0373	2	Nut, M5 M/S
MM0459	2	Flat Washer, M6
MM0379	2	Lock Washer, 5MM External Tooth
VH5017	50	Tie Strap
MM0488	2	Stud Projection 5M x 20
VA9506	1	Rod, Formed
PC1219	1	Card, General Electric (GE) Analog FB160C1