TTS

STACKER

Type: _____

Manufacturing year and number: _____

CE

NB:

Please read this manual before operating or performing maintenance on the forklift truck. Following the instructions will improve safety and enable unnecessary danger situations and accidents to be avoided.

2.12 OPERATION ENVIRONMENT

Temperature:

Operation	.....	-35°C - +55°C
Storage	.....	-40°C - +70°C
Humidity	.....	100% condensing according to IEC 68-2-30, Db

2.13 COOLING

External cooling	.....	Contact cooling to metal plate or frame
Isolation	.....	500VAC according to prEN 1175-1

2.14 EMC

Immunity:	According to prEN50081-2
Emmission:	According to prEN50082-2

WIRING: Throttle

Wiring for various throttles is described below. They are characterized as Type 1, Type 2, and Type 3 throttles in the programming menu of the handheld programmer. NOTE: In the text, throttles are identified by their nominal range and not by their actual active range.

If the throttle you are planning to use is not covered, please contact the Curtis office nearest you.

5kΩ–0 Throttle ("Type 1")

The 5kΩ–0 throttle (called a "Type 1" throttle in the programming menu of the handheld programmer) is a 2-wire resistive throttle that connects between the

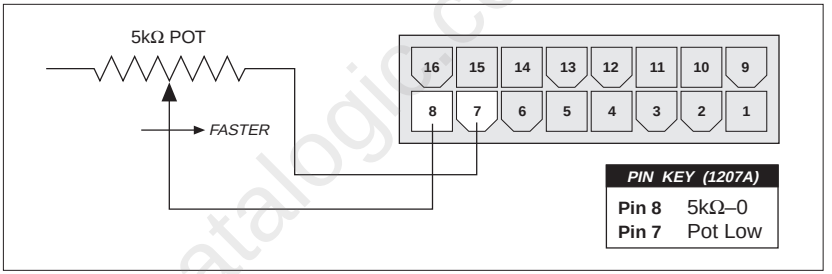


Fig. 5A *Wiring for 5kΩ–0 throttle ("Type 1").*

5kΩ–0/0–5kΩ pin (Pin 8) and the Pot Low pin (Pin 7), as shown in Figure 5A. It doesn't matter which wire goes on which pin. Zero speed corresponds to 5kΩ and full speed corresponds to 0Ω.

In addition to accommodating the basic 5kΩ–0 throttle, the Type 1 throttle is the easiest with which to implement a wigwag-style throttle. Using a 20kΩ potentiometer wired as shown in Figure 6A, the pot wiper can be set such that the controller has 5kΩ between Pins 7 and 8 when the throttle is in the neutral position (i.e., at the center of the pot). The throttle mechanism can then be designed such that rotating it either forward or back decreases the resistance

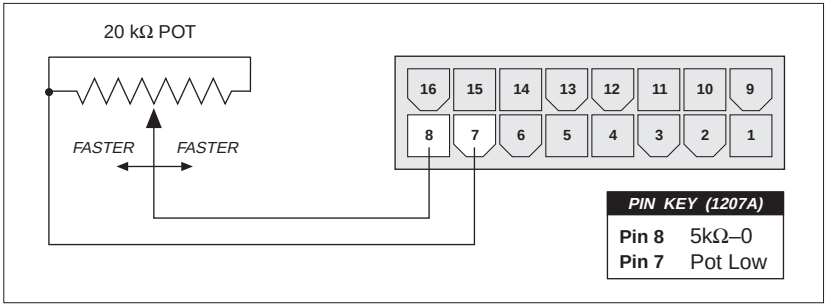


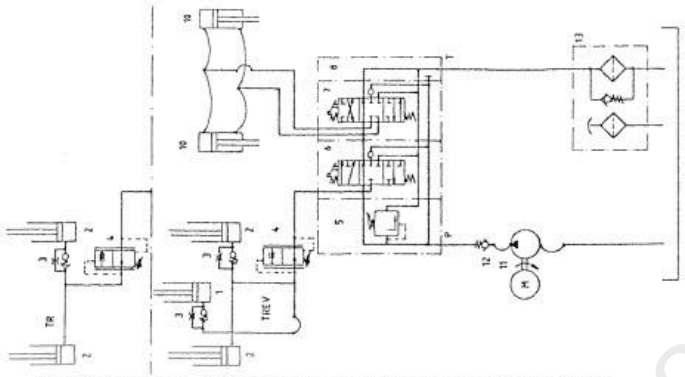
Fig. 6A *Wiring for 20kΩ potentiometer used as a wigwag-style throttle ("Type 1").*

CAT NS1200R/1500R/2000R NO: 52-

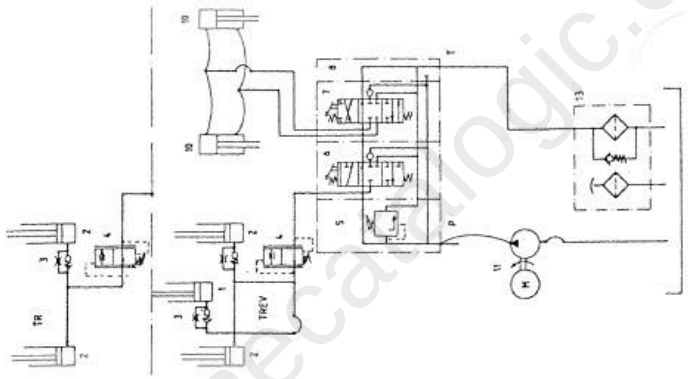
PMC 1207-1104 (PRGM: 00-04) Date 8.2.2002

PARAMETER:	RANGE:	SET:
MAIN C/L	20-250 A	230 A
L/S MAIN C/L	20-250 A	230 A
PLUG C/L	20-250 A	**20 A**
L/S PLUG C/L	20-250 A	72 A
EMR REV C/L	20-250 A	140 A
LS EMR REV C/L	20-250 A	140 A
RAMP C/L	20-250 A	200 A
L/S RAMP C/L	20-250 A	200 A
ACCEL RATE	0,1-3,0 s	**2,0 s**
QUICK START	0-6	0
THROTTLE TYPE	1,2,3,4	2
RAMP SHAPE	20-70 %	50 %
CREEP SPEED	0-25 %	**10 %**
LOW SPEED	40-100 %	100 %
HIGH SPEED	40-100 %	100 %
EMR REV SPEED)	25-100 %	80 %
(EQUENCING DLY	0-3 s	0 s
VARIABLE PLUG	on/off	on
HIGH PEDAL DIS	0,1,2	0
SRO	0,1,2,3	0
ANTI-TIEDOWN	on/off	off

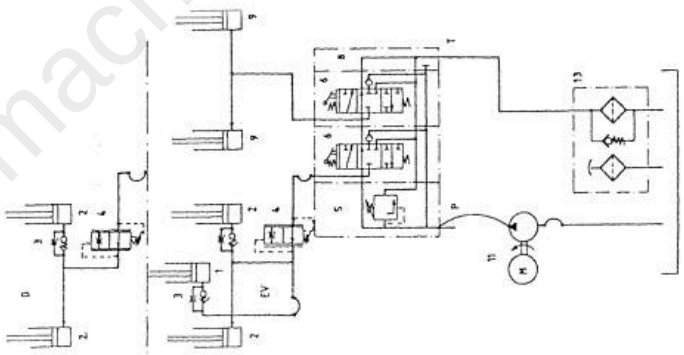
NS2000RTREV, NS2000RTR



NS1500RTREV, NS1500RTR, NS1200RTREV, NS1200RTR
NS1500TREV, NS1500TR, NS1200TREV, NS1200TR



NS1500RPNEV, NS1500RPND, NS1200RPNEV, NS1200RPND
NS1500PNEV, NS1500PND, NS1200PNEV, NS1200PND



1. Central cylinder
2. Side cylinder
3. Valve
4. Valve
5. Valve
6. Valve segment N
7. Valve segment G
8. Segment
9. Basic lift cylinder
10. Stabilizer cylinder
11. Pump motor
12. Valve
13. Filter

NS1200/1500/2000/R
HYDRAULIC DIAGRAM
TH8 090

CAT Lift Trucks

ELECTRICAL STEERING

L21
1/15
6.0 mm2
B+24 VDC
X43:
F41
50A
K41
21
4,0 mm2
X45: B+ GRN
4,0 mm2
X45: M1
X46:1
M3
STEERING
MOTOR 24 VDC
+ RED
- BLK
M3
X46:2
4,0 mm2
X45: M2
4,0 mm2
X45: B- 3 10 12 9 X47: 8
RED RED
ERROR N0.1 HIGH
ERROR N0.1 LOW
ERROR N0.2 HIGH
ERROR N0.2 LOW
M21
1/14
6.0 mm2
B-
X44:
F42
8A

S41, S42
STEERING
LIMIT SWITCHES

A4 ACC

STEERING
CONTROLLER
(2440)

X47: 1 — 24 V
X47: 11 — RED
X47: 5 — RED
X47: 6
X47: 4 — 0 V
1 2 3 4 5 6 7 8
OPEN
CLOSED

S41 NO COM
S42 NO COM

X48:2
X48:1

G1
STEERING WHEEL
TACHO METER
+
-
G1

K41 A1 A2
K42 2 10
K42 5 22 6
C3 3 1 0.4uF
1ohm

RED
H40
X1 X2

X50: 1
X50: 2
X50: 3

X49: 3
X49: 4

X49: 2
X49: 1

L11
1/19
L10
1/18

M30
6/13
OPTION

CAT Lift Trucks	CIRCUIT DIAGRAM TS580101	NP2000R/NS1200R/NS1500R/NS2000R ELECTRICAL STEERING: ATLAS COPCO	5 / 9 REV 3-6770

Full Version Available

Caterpillar NS1200R Stacker Operator Manual (WHOMM0005)

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