step, until, while

The first test is to ensure that these delimiters are only used in a for clause. The arithmetic expression preceding the current delimiter is then completed by the subroutines TAKE and UNSTAK, when the top of the stack should then be simple. The variable G is set up with the quantity stacked with simple, and LOKTYP is also set up. TYPCHK is called to generate any conversion necessary, e.g.:-

```
real A, B ; integer c;
for  A := B + c step
```

and TYPBOX is then set to LOKTYP. The current delimiter is then examined.

In the case of the delimiter step, simple is restacked with a marker to indicate that the delimiter until is required, and an instruction compiled (an example of a compiled for statement is given below). In the case of the delimiter while ARITH is set up for the algebraic expression following.

ERRORS

```
FAIL 78 ; corresponding for missing
FAIL 21 ; ":=" omitted from for clause
FAIL 80 ; step, until or while misused in
          for list element.
```

Example

```
begin integer i,j,k ;
    for i := 1 step 1 until j do k := 0
end;
```

generates: