<table>
<thead>
<tr>
<th><strong>Country</strong></th>
<th><strong>Spain</strong></th>
</tr>
</thead>
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<table>
<thead>
<tr>
<th><strong>Trait category:</strong></th>
<th><strong>Individual trait(s):</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Conformation</td>
<td>Udder</td>
</tr>
<tr>
<td></td>
<td>Locomotion</td>
</tr>
<tr>
<td></td>
<td>Other</td>
</tr>
</tbody>
</table>

Calculation & publication:
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### Spain

<table>
<thead>
<tr>
<th>Conformation traits</th>
<th>Udder: mammary system, fore udder, rear udder</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Locomotion: feet &amp; legs</td>
</tr>
<tr>
<td></td>
<td>Other: size, final score, corporal capacity, dairy character, rump</td>
</tr>
</tbody>
</table>

**Breed(s)**
- Holstein Friesian

**Trait definition and unit(s) of measuring**
- Size is scored on a linear 1-9 point scale. Final score is scored on a 65-90 point scale. Remaining traits are scored in 18 categories, which are transformed to a continuous scale by Snell Transformation

**Method of measuring and collecting data**
- Scored by classifier, herds are visited in a 9-10 month period

**Time period for data inclusion**
- Since 1984

**Age groups**
- All ages, but mostly 1st calvers

**Genetic parameters**
- $h^2_{udder traits} = 0.24$ to $0.27$
- $h^2_{locomotion traits} = 0.10$
- $h^2_{other traits} = 0.20$ to $0.36$

**Sire categories**
- AI-sires and registered NS-sires

**Environmental effects**
- Pre-adjustment evaluation model
  - None
  - Herd x visit x classifier, lactation number x age (76 categories), stage of lactation (11 classes)

**Base for age adjustment**
- None

**Use of genetic groups and/or relationships**
- Full relationship matrix

**Method (model) of genetic evaluation**
- ST BLUP AM

**System validation**
- Classifiers are monitored to promote consistency between them

**Expression of proof**
- Standardized breeding values so that 95% of bull proofs are between -15 and +15, higher values are more desirable

**Genetic (reference) base**
- Fixed base of the cows born in 1990

**Criteria for official publication of sire proofs**
- $\geq 20$ daughters in 10 herds

**Number of evaluations/publications per year**
- Two; January, July

**Use in total merit index**
- ICO:
  - $4 \times$ kg fat $+ 2 \times$ kg protein $+ 280 \times$ % protein $+ 4 \times$ feet & legs $+ 16 \times$ mammary system $+ 16 \times$ final score

**Key reference on methodology applied**

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128