

Strength and Conditioning for Rowing



Jürgen Grobler

Powerful Inter-muscular Co-ordination

Pressing movements

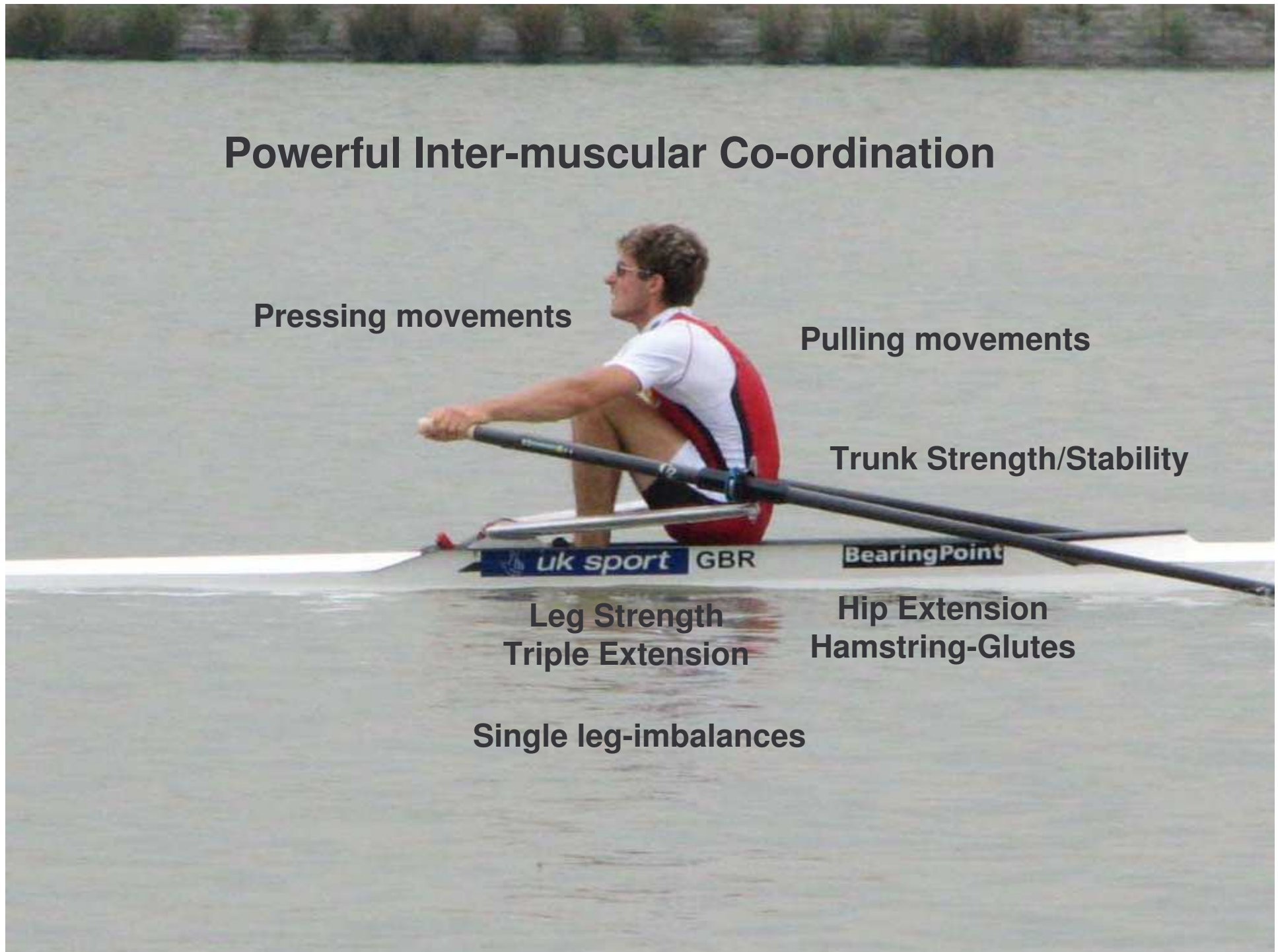
Pulling movements

Trunk Strength/Stability

Leg Strength
Triple Extension

Hip Extension
Hamstring-Glutes

Single leg-imbalances



Overview

ROWING:STRENGTH-ENDURANCE SPORT

- How we use strength and conditioning programmes (Land/Water)
- Main components of a program
- Example of exercises
- Principles of Training
- Putting it all together

Why do gym training?

- Strength training as basis for rowing performance
- Improve muscular endurance
- Improve strength
- Improve power
- Gain muscle mass
- Address areas of weakness / imbalances(antagonisten) and prevent injury

Principles of Training

- Overload
- Progression
- Specificity
- Variation
- Individuality
- Reversibility

Bilateral Leg Exercises

Leg Press



Back Squat



Front Squat



Single leg Exercise

Step Up



Split Squat



Single Leg Squat



Lunge



Hip Extension

Back Ext



Deadlift



Stiff Leg Deadlift



Goodmorning



Pulling Exercises

Bench Pull



Bent Over Row



Single Arm DB Row



Supine Pull Up



Pull Up



Pressing Exercises

Press Up





Bench Press



Swiss Ball DB Press



Shoulder Press



Trunk Exercises

Plank



Side Plank



Opposite Arm and Leg Raise



Glute Bridge



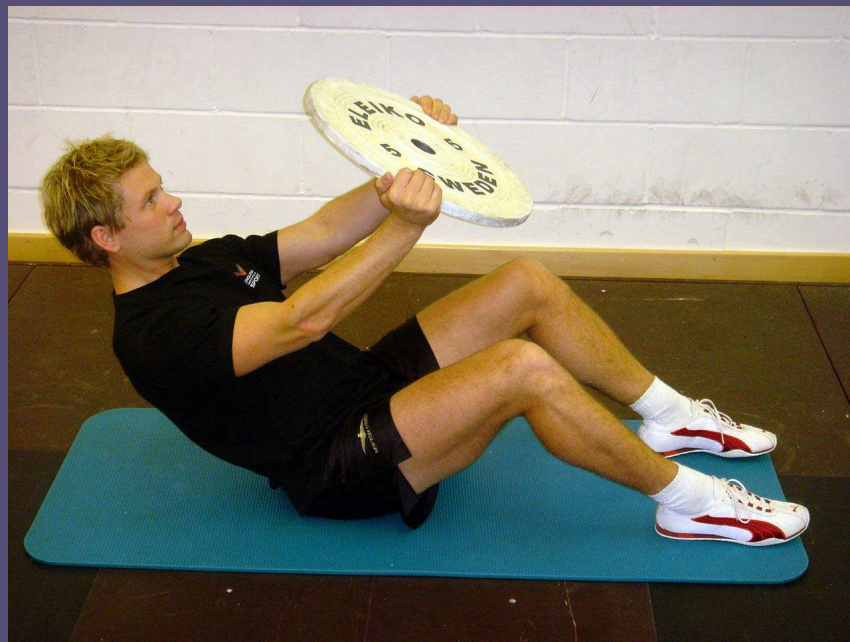
Leg Ext



V-Sit Hold

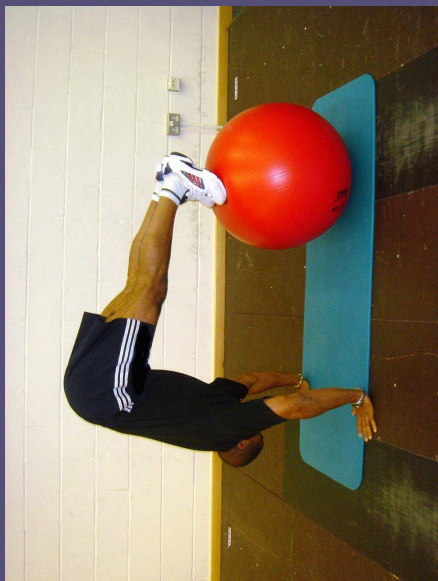


Russian Twist



Wipers





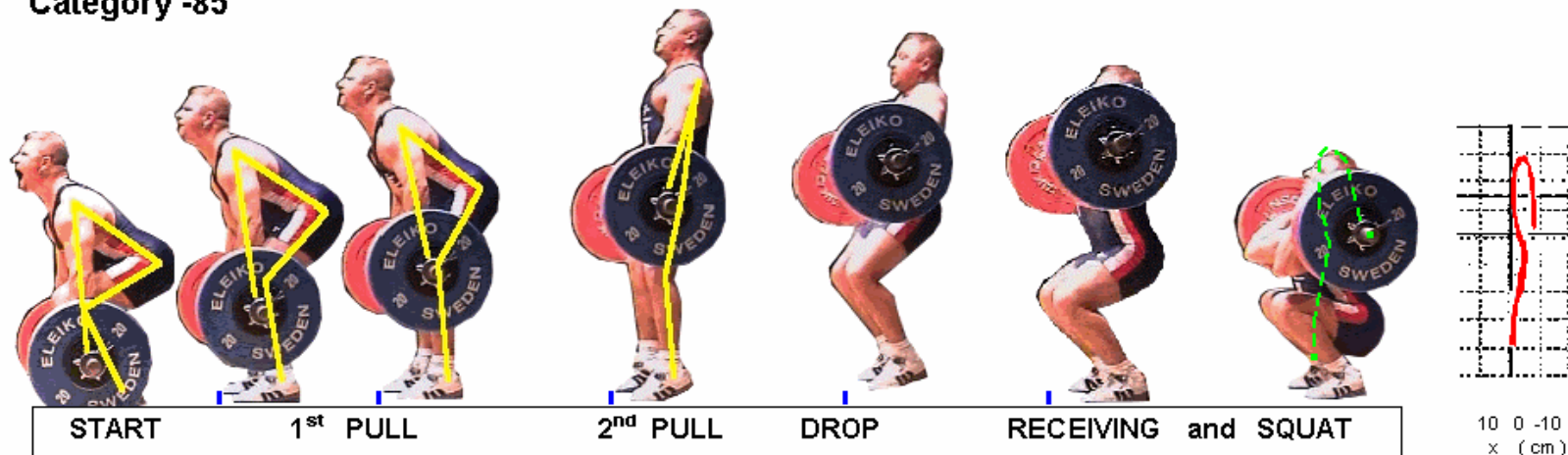
Power Clean



Technique - Clean

Institute of Strength Training
and Olympic Weight Lifting

170,0 kg
Category -85



V max.

Path of the bar

Muscles tight
Back flat
Shoulders
above the bar
Feet hip width
apart

Foot tips under
the bar
Arms straight

no rising of the
buttocks
(parallel back shift)

Knees move
backwards

Back flat

Arms straight

explosive hip
and knee
extension

full body
extension,
shrug

Arms remain
straight

reaching
maximum
velocity (V max.)

quick drop
under the bar
active arm pull
pull close to the
body, do not
swing the bar
jump into squat
feet move low
above ground

immediately ground
contact
Elbows up, fast
active break of the falling
bar
Feet shoulder width apart
Stable squat position,
muscles tight

Bar moves
behind the
vertical line
(from start)
do not move
around the
knees (1st pull)
no bar swing
during 2nd pull

Klaus Bartonietz Ph D
Günter Renner Coach



Strength Training Continuum

	Strength	Power	Hypertrophy	Endurance
Reps	1-5	3-12	8-15	15+
Int	95-85%	80-30%	80-70%	<70%
Rest	3-5min	3-5min	1min	<60sec
Force	High	High-Low	Med	Low
Vel	Slow	High	Med	High-Low
Volume	Low	Low	High	High
Rec	48hrs	24-48hrs	48-72hrs	24hrs

Warm Up

- To prepare the body for the session
- Dynamic movements – lunges, squats etc to improve mobility
- Activation exercises for the glutes / core
- Flexibility exercises for ‘tight’ muscles – hip flexors

Strength Session

Power Cleans	4 x 6
Back Squats	4 x 8
Bench Pull	4 x 8
Stiff Leg Deadlift	4 x 8
Bench Press	4 x 8
Step ups	4 x 8

Endurance Circuit

Power Cleans	15
Bench Pulls	30
Press Ups	30
Squats	30
Wipers	30
Leg Press	30
Seated Row	30
Bench Press	30
Jumps	20
Plank Hold	1min
Lat Pulldowns	30
Lunges	30

Endurance Circuit

- | | | | | | | |
|------------------------------------|----------|----------|-----|--|----------|-------------|
| • Bench pulls | Rate:>26 | 52.5 kg | 35x | • Dorsal raises with twist and 3" hold | 15 kg | 10x |
| • Swiss ball angel | | 2x2.5 kg | 20x | • Lateral pulls to the neck | 50 kg | 20x |
| • Squat box- jumps | | | 20x | • "Windscreen wiper" | 7.5 kg | 15x |
| • Ergo R:26 | <1:35.0 | | 20x | • Bench pulls | Rate:>30 | 42.5 kg 30x |
| • Bench press | | 45 kg | 25x | • Leg extension | 50-60 kg | 15x |
| • Crunch sit ups (leg crossed l+r) | | | 20x | • Upper body rotation with 15kg | | 20x |
| • Expander | | | 25x | • "Dyno" Leg drive | | 15x |
| • Leg press | | 110 kg | 20x | • D-squats with arm pulls 2x15 kg | | 20x |

Total: 320 x 4 = 1280 Reps

J.Grobler
Chief Coach

Concluding Remarks

- Gym training has a variety of purposes
- Train movements not muscles
- Mobility & Posture
- Use your coaching eye

