

About this document

This document outlines the Fire and Emergency Career Firefighter Physical Pre-Entry Test, how it relates to the tasks firefighters undertake regularly, and also includes training recommendations for candidates looking to prepare for the Physical Pre-Entry Test.

An example strength training plan is on the last page of this document.

What is the Physical Pre-Entry Test (PPT)?

The Physical Pre-Entry Test is one of the assessments candidates undertake in the Career Firefighter recruitment process.



The Physical Pre-Entry Test is made up of two parts. The first part is Job Related Tasks. This includes 8 exercises which simulate tasks firefighters undertake frequently.

The second part is the Strength and Endurance Test. This includes 4 exercises that test general strength.

The Physical Pre-Entry Test ensures that candidates who are successful through the recruitment process have the minimum level of strength and fitness for the 12-week Recruit Training Course, and to carry through into the Career Firefighter role.

PART ONE: JOB RELATED TASKS

For this test you will be required to wear clothing and footwear suitable for physical activity. You will wear a Breathing Apparatus set (which weighs approximately 16kgs) and gloves, which will be supplied to you on the day.

There is a 30-metre transition walk in between most tasks. You will be given 8 mins 15 secs to complete the test including these transition walks.

THE 8 JOB RELATED TASKS

I. Hose reel advance: 40 metres

Transition - 30 metres

2. Simulated ladder extension: 28kg raise with 7 second hold

Transition - 30 metres

3. Weighted stair climb: 25 repetitions with an added 18kg

Transition - 30 metres

4. Simulated ladder extension: 28kg raise with 7 second hold (opposite arm)

Transition - 30 metres

5. Coiled hose carry: 17kg hose 50 metres

Transition - 30 metres

- 6. Un-weighted stair climb: 25 repetitions with no added weight
- 7. Horizontal haul aloft: 16kg weight to a height of 10 metres

Transition - 30 metres

8. Dummy drag: 30 metre drag with 90kg weight





HOSEREELADVANCE

This task requires you to extend the hose-reel off the drum to a distance of 40 metres. You may run or walk; however this is the only time you are permitted to run during the test.

You will:

- Place the hose over your shoulder.
- Firmly grasp the branch.
- Run forward.
- Once you reach the 40m-mark, place the branch down and move on to the next task.

Training Suggestion

There are multiple ways to build the strength to perform this task. Some exercise options to incorporate in your regular training regime include;

- Sled/tyre drags
- Leg press
- Lunges
- Squats
- Plank/dish holds
- Hollow rocks
- Leg raises
- GHD sit-ups





This task requires you to raise a 28kg weight to a height of 5.3m followed by a 7 second hold. This is completed twice during the testing.

- You may start with a two-handed pull, but must then use a hand over hand method to raise the weight.
- Your upper body must remain vertical throughout task. You are permitted to bend your knees for stability, however you must not use momentum from the lower body.
- The weight must continue to travel in a smooth upward direction.
- Once the weight reaches the required height you will hold the line in one hand, between your shoulders and the top of your head, for 7 seconds.
- We will inform you when the time is reached.
- No other part of the line can be touching your body.
- If the line slips, the count will stop and will not restart until the line is secured.
- The load must be returned to the ground in a controlled hand over hand manner.

Training Suggestion

There are multiple ways to build the strength to perform this task. Some exercise options to incorporate in your regular training regime include;

- · Lat pull downs
- Pull-ups
- Dumbbell hammer curls
- Legless rope climbs
- Seated cable rows
- Bent-over barbell rows
- Plank/dish holds
- · Hollow rocks
- Leg raises
- GHD sit-ups
- Single arm pulldown



Why we test for this

Firefighters are required to perform rescues and other tasks from heights, thus extending a ladder is considered a core skill. This test is a simulation of extending our 10.5m ladders in a controlled environment, and requires upper body strength and endurance.

The actual task takes three firefighters to perform - two holding the ladder while the third extends it.







This task requires you to complete 25 stair repetitions carrying an additional 18kg weight.

- You must step up and down 25 times.
- The additional weight will be placed across the cylinder of the BA set.
- Your whole foot must be placed on each step and both heels must make contact at the top.



Training Suggestion

There are multiple ways to build the strength to perform this task. Some exercise options to incorporate in your regular training regime include;

- Stair climbs
- Weighted lunges
- Step-ups
- Squats
- Leg press
- Plank/dish holds
- Hollow rocks
- Leg raises
- GHD sit-ups



Why we test for this

Firefighters use stairwells to access upper floors of buildings while carrying firefighting equipment.

This test simulates climbing multiple flights of stairs while carrying essential equipment. It requires core and leg strength, as well as endurance, to ensure firefighters maintain energy to continue operational duties e.g. fight the fire.



For the second simulated ladder task, you are required to raise a 28kg weight to a height of 5.3m, followed by a 7 second hold. The hold must be done with the opposite hand to the previous ladder extension. The same conditions for the first extension also apply here.

- You may start with a two-handed pull but must then use a hand over hand method to raise the weight.
- Your upper body must remain vertical throughout task. You are permitted to bend your knees for stability, however you must not use momentum from the lower
- The weight must continue to travel in a smooth upward direction.
- Once the weight reaches the required height, you will then hold the line in one hand, between your shoulders and the top of your head, for 7 seconds.
- We will inform you when the time is reached.
- No other part of the line can be touching your body.
- If the line slips the count will stop and will not restart until the line is secured.
- The load must be returned to the ground in a controlled hand over hand manner.



Training Suggestion

There are multiple ways to build the strength to perform this task. Some exercise options to incorporate in your regular training regime include;

- Lat pull downs
- Plank/dish holds
- Pull-ups
- Hollow rocks
- Dumbbell hammer curls Leg raise
- Body weight rows
- GHD sit-ups
- Seated cable rows
- Single arm pulldown
- Bent-over barbell rows Legless rope climbs



Why we test for this

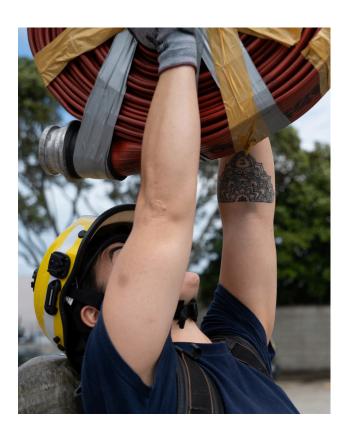
Firefighters are required to perform rescues and other tasks from heights, thus extending a ladder is considered a core skill. This test is a simulation of extending our 10.5m ladders in a controlled environment and requires upper body strength and endurance.

The actual task takes three firefighters to perform - two holding the ladder while the third extends it.



This task requires you to carry a 17kg coiled hose at chest height for a distance of 50m.

- You will hold the coil by the lugs out in front of you.
- The hose must not touch or rest on your body.
- You may hold it to one side if more comfortable, or to see where you are going.
- The hose cannot be put down for the duration of the test.



Training Suggestion

There are multiple ways to build the strength to perform this task. Some exercise options to incorporate in your regular training regime include;

- Static holds
- Dumbbell hammer curls
- · Object carries
- Plank/dish holds
- Hollow rocks
- Leg raises
- GHD sit-ups
- Wall walks



Why we test for this

Firefighters deploy hoses in multiple ways. This task simulates one of the more taxing methods, and requires a good amount of upper body and core strength.



This task requires you to complete 25 stair repetitions. There will be no additional weight added this time.

- You must step up and down 25 times.
- Your whole foot must be placed on the step and both heels must make contact with the top step.



Training Suggestion

There are multiple ways to build the strength to perform this task. Some exercise options to incorporate in your regular training regime include;

- Stair climbs
- Weighted lunges
- Step-ups
- Squats
- Leg press
- Plank/dish holds
- · Hollow rocks
- Leg raises
- GHD sit-ups



Why we test for this

Firefighters use stairwells to access upper floors of buildings while carrying firefighting equipment.

This test simulates climbing multiple flights of stairs while carrying essential equipment. It requires core and leg strength, as well as endurance to ensure firefighters maintain energy to continue operation duties e.g. to fight the fire.



This task requires you to haul a 16kg weight to a height of 10m.

- You must maintain a stationary position and use a hand-overhand method.
- The weight must continue to travel in an upward direction.
- You must not wrap the line around your hands.
- Once the weight has reached the top, control it back to the ground using a hand-over-hand method.
- You are not permitted to allow the line to slip through your hands at any point.





Training Suggestion

There are multiple ways to build the strength to perform this task. Some exercise options to incorporate in your regular training regime include;

- Lat pull downs
- Dumbbell hammer curls
- Body weight rows
- Seated cable rows
- Bent-over barbell rows
- Sled pulls
- Plank/dish holds
- Hollow rocks
- Leg raises
- GHD sit-ups



Why we test for this

Firefighters are required to haul equipment to upper levels of buildings by means of rope. This test simulates these tasks, and requires upper-body and core strength.



This task requires you to drag a 90kg dummy for a distance of 30m.

- You must walk backwards over the 30-metre distance.
- Once you start you cannot stop, and must maintain contact with the dummy for the entire time.
- If you trip or fall and still manage to keep contact with the dummy you may get up and continue the task as long as you do so immediately. Grip cannot be changed.
- The timer will stop when the dummy passes the finish line



Training Suggestion

There are multiple ways to build the strength to perform this task. Some exercise options to incorporate in your regular training regime include;

- Reverse sled/tyre drags
- Deadlifts
- Deadlift holds
- Plank/dish holds
- Hollow rocks
- · Leg raise
- GHD sit-ups
- · Farmers carries



Why we test for this

Firefighters are required to perform rescues in varying environments, whether it be a member of the public or another firefighter. This requires physical and mental strength, often under fatigue.

PART 2: GENERAL STRENGTH AND ENDURANCE TEST

The second part of the Physical Pre-Entry Test is the **General Strength and Endurance Test**, and takes place after the **Job-Related Tasks**. You will have a 7-minute rest after completing Job-Related Tasks, then commence the following 4 exercises;

- Shoulder Press
- Grip Strength
- Deadlift
- Press-up

The benchmarks for the Grip Strength and the Deadlift assessments will be based on your bodyweight, which will be measured on the day of your test.

You will be placed in a weight category that will determine the targets required for each of the strength and endurance exercises.

All of these exercises are scored out of 5. To be successful your combined total score of all exercises must be at least 10, with no more than 1 marginal score (see chart below). One score of 0 in any of the exercises will deem you unsuccessful.





This is a strength and endurance test of the shoulders and arms. For this test you will be required to press a 20kg bar above the head in time with a metronome.

- The test is performed from the standing position.
- You will complete as many reps as possible to a maximum of 17.
- The repetition tempo is 1 second up/ 1 second down in time with the metronome.
- If reps fall out of cadence the count will pause and you will have 2 reps to regain tempo.
- The test will end if you stop or fall out of cadence a second time.
- The reps completed up to that point will be recorded.
- Your score will be based on how many repetitions you have completed.



Training Suggestion

Work on your volume (try to use the assessment weight of 20kg) by doing max rep sets, or an EMOM increasing the reps you do each training day. Remember this is a test of muscle endurance and you will be assessed at a cadence of 1 second up/ 1 second down. We strongly suggest you use a metronome during your training.

As well as shoulder press, the following accessory exercises can also improve your shoulder press:

- Ring rows
- Bench press
- Tricep dips and tricep extension
- Plank/dish holds
- Scapula contractions/retractions



Why we test for this

Firefighters are required to perform rescues, and other general strength-based tasks, across many environments. This requires a range of physical abilities, including upper-body strength.



This test requires you to squeeze a dynamometer to test grip strength.

- A minimum reading of 35 is required before you are rated against the **Body Mass Scale**.
- The dynamometer will be correctly adjusted to the size of your hand.
- You must hold the dynamometer in one one hand, with your arm by your side.
- Squeeze the dynamometer exerting as much pressure as possible.
- Both arms are tested, and the final reading is the lower of the two.
- You have up to three attempts on each hand.
- The score will be given as per the Body Mass Scale.





Training Suggestion

The first practical step to increase grip strength is to avoid using lifting straps or hook grips, as this compensates for a weaker grip and prevents you from improving grip strength. Instead, dial back the weight to one you can hold unassisted, and your grip strength will improve.

Every time you train pulling or lifting exercises, you will also be training your grip strength. Keeping this in mind, adopt an active grip for the duration of the set. Avoid letting the bar slide towards your fingers during a set. Instead, keep it locked firmly in the palm of your hand and wrap your thumb around the bar to hold it in place, and squeeze.

You can take things up a level by using "fat bars" or "fat grips" while lifting, or use a towel/rope in pulling movements.

Some exercises you can do to improve grip strength include;

- Farmers carries
- Plate carries
- Bar hangs
- Deadlifts
- wrist rollers
- finger rolls



Why we test for this

Firefighters are required to perform rescues, and other general strength-based tasks, across many environments. This requires a range of physical abilities, including upper-body strength and grip strength.



This test requires you to exert maximum force against a static platform whilst in a deadlift position. This test simulates your ability to lift and hold a large mass.

- You must achieve a minimum reading of 105kg before you are rated against the **Body Mass Scale.**
- The chain will be adjusted so the bar is positioned just above the kneecap.
- You may use an overhand, underhand or mixed grip to hold the bar.
- Position your feet each side of the chain and make sure your back is straight.
- You will need to exert a maximum effort for at least 5 seconds.
- You have the option to have two attempts.
- The highest reading will be recorded.
- The score will be given as per the **Body Mass Scale**.



Why we test for this Firefighters are required to perform rescues, and other general strength-based tasks, across many environments. This requires a range of physical abilities, including upper-body and lower-body strength.





How to deadlift hold

- Set up rack supports if needed, just below hip level.
 Place your barbell on the supports, and add weight.
- Grasp the bar with an overhand grip, placing your hands just outside of your hip width. It's best to use your normal deadlifting form for this.
- Hinging at the hips and knees, bend over to pick up the bar. Keep your core engaged and spine neutrally aligned.
- Hold for 20 to 40 seconds before placing it back down.

Training Suggestion

To increase deadlift strength, focus on increasing hamstring, quad and glute strength, as well as building strength in your lats, upper back and core. Initially, start with light weights and focus on technique before increasing the weight.

The barbell deadlift hold is another common variation that can increase your performance with both the deadlift and grip strength tests. If performed with heavy weights, forearms and grip strength will significantly improve.

Other accessory work you could include:

- Leg press
- Kettlebell swings
- Rows
- Rack pulls; deadlift power is tested in the PPT in the upper range of the movement. Therefore, in addition to your regular deadlifts, it can be beneficial to also add rack pulls to strengthen this part of the movement.



This test requires you to perform press-ups in time with a metronome. You will complete as many reps as possible to a maximum of 21. Knee press-ups are not permitted.

- Lie on the ground with your shoulders on the line, and arms extended at 90 degrees.
- Slide your hands back until your fingers are behind the line where your elbows were.
- Once in this position you will fully extend arms to assume the starting position.
- While keeping your body flat and rigid, bend the elbows until you reach a 90 degree angle.
- Fully extend arms to return to the starting position to complete one rep.
- If reps fall out of cadence the count will pause and you will have 2 reps to get back in time.
- The test will end if you stop or fall out of cadence a second time.
- Your score will be based on how many repetitions completed.





Training Suggestion

If you are not able to perform full press-ups, there are multiple ways of building the strength before adding volume:

- Slow descents/negatives.
- Incline use a box or stairs.
- Width variations alter the positioning of your hands.
- Aim for depth use a yoga block or similar under your hands to make sure you hit the required depth.
- Full ROM (hand release press-ups) go all the way chest to ground, lift your hands at the bottom to counter the stretch reflex.

Other accessory exercises to improve press-ups include:

- Ring rows
- Bench press
- Plank/dish holds
- Scapula contractions/retractions

Example press-up training session:

- Perform 1 x set of max reps.
- Then complete 3 x sets of 50-60% of the first max rep set.



Why we test for this

Firefighters are required to perform rescues, and other general strength-based tasks, across many environments. This requires a range of physical abilities, including upper-body strength.

Scoring Schedule and Body Mass Scale

Below is the Scoring Schedule. You must get a minimum total score of 10 to pass, with no more than 1 *marginal* score. A score of 0 in any of the exercises will also be unsuccessful.

EXERCISE	SCORE	0	1	2	3	4	5
Shoulder Press	Number (20kg Bar)	7 or less	8-9	10-11	12-13	14-16	17+
Grip Strength	% Body Weight – Min 35kg	40% or less	40-44%	45-49%	50-54%	55-59%	60%+
Deadlift	% Body Weight – Max 105kg	115% or less	115-129%	130-149%	150-165%	166-189%	190%+
Press-Up	Number (Full)	9 or less	10-11	12-14	15-17	18-20	21+
		Fail	Marginal	Marginal	Pass	Pass	Pass

Below is the Body Mass Scale. You will be weighed and placed into a weight category on the day of your test. This will indicate what scoring you are required to achieve in the Grip Strength and Deadlift.

Note: You will be rounded up to the nearest Body Mass weight category on the chart. For example, if you are 62kg you will be in the 65kg weight category.

Candidate Body Mass	Grip Strength						Dead Lift					
SCORE	0 (<)	1	2	3	4	5 (>)	0 (<)	1	2	3	4	5 (>)
√60	< 35				-35	36	< 105			105	106-112	113+
65	< 35			-35	35-38	39	< 105			105	106-121	123
70	< 35			35-37	38-41	42	< 105		105	106-114	115-131	132
75	< 35		-36	36-40	41-44	45	< 105		105-110	111-122	123-140	141
80	< 35	35	36-39	40-43	44-47	48	< 105	105	106-118	119-131	132-151	152
85	< 35	35-37	38-41	42-45	46-50	51	< 105	106-109	110-125	126-139	140-160	161
90	< 35	35-39	40-44	45-48	49-53	54	< 105	106-115	116-133	134-147	148-170	171
95	37	38-41	42-46	47-51	52-56	57	108	109-121	122-140	141-155	156-180	181
100	39	40-44	45-49	50-54	55-59	60	114	115-128	129-148	149-164	165-189	190
105	41	42-46	47-51	52-56	57-62	63	120	121-134	135-155	156-172	173-199	200
110	43	44-48	49-53	54-59	60-65	66	126	115-141	142-163	164-180	181-208	209
115	45	46-50	51-56	57-62	63-68	69	131	131-147	148-170	171-188	189-218	219
120	47	48-52	53-58	59-64	65-71	72	137	138-154	155-178	179-197	198-227	228
125	49	50-55	56-61	62-67	68-74	75	143	144-160	161-185	186-205	206-237	238
130	51	52-57	58-63	64-70	71-77	78	148	149-167	168-192	193-213	214-246	247
135	53	54-59	60-66	67-72	73-80	81	154	155-173	174-200	201-221	222-256	257
140	55	56-61	62-68	69-75	76-83	84	160	161-179	180-207	208-230	231-265	266
145	57	58-63	64-71	72-78	79-86	87	165	166-186	187-215	216-238	239-275	276
150	59	60-66	67-73	74-81	82-89	90	171	172-187	188-222	223-246	247-284	285



WE RECOMMEND HAVING A REST DAY TWICE PER WEEK WHILE ON THIS PROGRAMME

	WARM UP		STRENGTH		
ONE	60 Seconds Cardio 1 Set		Gradually warm up to working weight and then complete required reps. Rest 2 minutes between sets.		
DAY	10 x Air Squats	3 Sets	Backsquat	5 x 5 sets	
TUATAHI	10 x Ground to Overhead (Dumbbell or Plate)	3 Sets	Romanian Deadlift	5 x 5 sets	
2	10 x Mountain Climbers	3 Sets	Push Ups	3 x 8 sets	
RĀ				1 x set of max reps then complete 3 x sets of 50–60% of the first max rep set.	

9	WARM UP		STRENGTH			
/ TW0	60 Seconds Cardio 1 Set		Warm up to working weight and then complete required reps			
RĀ TUARUA DAY	10 x Air Squats	3 Sets	Superset a. Barbell Strict Press b. Lat Pull Down	5 x 5 sets Rest 90 secs between supersets		
	10 x Ground to Overhead (Dumbbell or Plate)	3 Sets	Superset a . Bench Press b . Seated Cable Row	4 x 8 sets Rest 90 secs between supersets		
	10 x Mountain Climbers	3 Sets	Bicep Curls	3 x 8 sets		

끮	WARM UP		STRENGTH		
Y THREE	60 Seconds Cardio	1 Set	Gradually warm up to working weight and then complete required reps. Rest 2 minutes between sets.		
ď	10 x Air Squats	3 Sets	Deadlift	5 x 5 sets	
RĀ TUATORU	10 x Ground to Overhead (Dumbbell or Plate)	3 Sets	Front Squats	4 x 8 sets	
	10 x Mountain Climbers	3 Sets	Push Ups	1 x set of max reps then complete 3 x sets of 50–60% of the first max rep set.	

œ	WARM UP		STRENGTH				
FOUR	60 Seconds Cardio 1		Warm up to working weight and then complete required reps				
R <mark>ā tuawhā</mark> dayi	10 x Dumbbell Press	3 Sets	Superset a. Bench Press b. Seated Cable Row	5 x 5 sets Rest 90 secs between supersets			
	10 x Burpees 3 Se		Superset a. Barbell Strict Press b. Lat Pull Down	4 x 8 sets Rest 90 secs between supersets			
	10 x Ring Row or Inverted Row	3 Sets	Bicep Curls	3 x 8 sets			
<u>=</u>	Finish 30-60 secs plank	3 Sets					